(54) Title: METHODS FOR GENERATING BROADLY NEUTRALIZING ANTI-HIV ANTIBODIES AND ANTIGENS CAPABLE OF ELICITING SAME

(57) Abstract

This invention features methods for identifying molecules which will act as antigens capable of eliciting broadly neutralizing anti-HIV antibodies, and methods for producing recombinant, broadly neutralizing anti-HIV antibodies.

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# METHODS FOR GENERATING BROADLY NEUTRALIZING ANTI-HIV ANTIBODIES AND ANTIGENS CAPABLE OF ELICITING SAME

## Background of the invention

5      Human Immunodeficiency Virus (HIV), the etiologic agent of Acquired Immunodeficiency Syndrome (AIDS) and related disorders, is a retrovirus which infects certain immune system cells, including T4 lymphocytes and CD4$^+$ cells of the monocyte/macrophage lineage. In the absence

10     of effective treatment, the mortality rate for AIDS patients approaches 100% (Fauci, *Science* 239:617, 1988).

Well over 100 HIV variants have been identified. The amino acid sequence of the HIV envelope glycoprotein gp120 is particularly variable; its amino acid sequence

15     can vary by 20-25% from one strain to the next. In addition to strain to strain variability, there is a more subtle variation in genome sequence probably caused by the high error rate of reverse transcriptase. Consequently any particular viral isolate consists of a

20     cohort of quasi-species. Further, the diversity and number of quasi-species apparently differs from one HIV variant to another. There is substantial evidence that these quasi-species evolve *in vivo*. For example, successive viral isolates from an infected individual

25     reveal substantial temporal fluctuations in the proportion of various quasi-species (Meyehans, *Cell* 58:901, 1989). Infected individuals initially mount a humoral and cellular immune response against HIV, and there is reason to believe that an infected individual's

30     immune response may actually encourage viral spread and the emergence of more resistant variants (McCune et al., *Cell* 64:351, 1991). This extreme heterogeneity makes it difficult to generate vaccines or antibodies that will be effective against a wide range of HIV strains.

35     Antibodies that have neutralizing activity against the HIV virus have been proposed for treatment of HIV

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infection.    The primary targets for neutralizing anti-HIV
antibodies are within gp120, the envelope glycoprotein.
The loop structure within the third variable (V3) domain
of gp120 is believed to be the principal neutralization

5   domain (PND) of gp120.    Because of the extreme sequence
heterogeneity of gp120 among HIV isolates, the V3 loop
elicits predominately strain-specific neutralizing
antibodies.    Nevertheless anti-V3 loop antibodies that
recognize short, highly conserved sub-sequences of the

10  loop and are capable of neutralizing a broad range of HIV
isolates have been identified (Scott et al., PCT
Publication No. WO 90/15078; Javaherian et al., *Science*
250:1590, 1990).    Such antibodies are referred to as
broadly neutralizing antibodies.

15       Given the importance of attacking a wide range of
HIV strains, it would be very desirable to have the
ability to generate a variety of broadly neutralizing
antibodies and variety of antigens capable of eliciting
such antibodies.

20            Summary of the Invention
         In general, the invention features methods for
identifying molecules, preferably organic molecules,
which will act as antigens capable of binding to or
eliciting broadly neutralizing anti-HIV antibodies.    The

25  invention also features methods for designing and
producing recombinant, broadly neutralizing anti-HIV
antibodies.    Both methods rely on the use of precise
structural information derived from x-ray
crystallographic studies of the Fab portion two different

30  broadly neutralizing anti-HIV antibodies, 58.2 and 59.1,
each complexed with a peptide antigen, and described
herein.

         Specifically, these data permit the identification
of the atoms in each antigen that are important for

35  antigen-antibody binding.    More importantly, the data

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described herein permit one to describe the precise
three-dimensional arrangement of these important contact
atoms.  Other molecules which include atoms having a
three-dimensional arrangement similar to some or all of
5 these contact atoms are likely to be capable of binding
to and eliciting broadly neutralizing anti-HIV
antibodies.  The use of the structural data presented
herein permits the identification of such structurally
similar molecules using any of a number of commercially
10 available computer programs.

The data presented herein also permits the
identification of the atoms in antibodies 58.2 and 59.1
that are important for antigen binding.  This information
permits one to generate broadly neutralizing recombinant
15 anti-HIV antibodies by engineering a suitable antibody to
include these important contact atoms.

Accordingly, the invention features a method for
identifying molecules capable of binding to or eliciting
anti-HIV antibodies (preferably broadly neutralizing
20 antibodies), involving (1) selecting an anti-HIV
antibody-contacting pharmacophore within the peptide
antigen RP142; (2) comparing the pharmacophore to three-
dimensional molecular structures in a structural database
using a computer program; (3) identifying candidate
25 molecules within the database predicted to include the
pharmacophore; and (4) screen candidate molecules to
identify one or more capable of binding to or eliciting
HIV antibodies (preferably broadly neutralizing
antibodies).

30 The same method can be used employing antibody-
contacting pharmacophores within the cyclic peptide AS.

In another embodiment, the invention features a
method for identifying molecules capable of binding to or
eliciting anti-HIV antibodies (preferably broadly

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neutralizing antibodies), involving: (1) selecting a
region of three to seven contiguous amino acids within
the central domain of the peptide antigen RP152; (2)
comparing the atomic coordinates with the backbone of the
5  selected region with the atomic coordinates of the
backbones of three to seven amino acid polypeptide
sequences in a protein structure database using a
computer program; (3) identifying a candidate three to
seven amino acid polypeptide sequence present in the
10  database in which the root mean square difference between
the backbone atomic coordinates of the candidate peptide
and the backbone atomic coordinates of the selected
region of RP142 is less than about 0.5 Å; (4) in a model,
sequentially replacing each amino acid side chain of the
15  candidate peptide with an alternative amino acid side
chain to create a set of substitute selected peptides;
and (5) identifying preferred substituted selected
peptides present in the set of substituted peptides so
that the root mean square difference between all of the
20  atomic coordinates of each of the preferred substitute
selected peptide and all atomic coordinates of the
central domain of RP142 is less than about 0.3Å.  The
preferred peptides are then screened as described herein.
        In a preferred embodiment of the last-recited
25  process, step (5) involves, in a model, sequentially
replacing each amino acid side chain of the candidate
peptide with an alternative amino acid side chain, and
then rotating each replaced amino acid side chain of each
candidate peptide on its alpha covalent bond to identify
30  a minimum energy position.
        In another aspect, the invention features a method
for identifying molecules capable of eliciting anti-HIV
antibodies (preferably broadly neutralizing antibodies),
involving (1) selecting a region of three to seven
35  contiguous amino acids within cyclic peptide AS; (2)

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comparing the atomic coordinates of the backbone of the
selected region with the atomic coordinates of the
backbones of three to seven amino acid polypeptide
sequences in a protein structure database using a
5   computer program; (3) identifying a candidate three to
seven amino acid polypeptide sequence present in the
database wherein the root mean square difference between
the backbone atomic coordinates of the candidate peptide
and the backbone atomic coordinates of the selected
10  region of cyclic peptide AS is less than about 0.5 Å; (4)
in a model, sequentially replacing each amino acid side
chain of the candidate peptide with an alternative amino
acid side chain to create a set of substituted selected
peptides; and (5) identifying preferred substituted
15  selected peptides present in the set of substituted
peptides wherein the root mean square difference between
all the atomic coordinates of each preferred substituted
selected peptide and all atomic coordinates of the cyclic
peptide AS is less than about 0.3Å.  Candidates are
20  screened as described herein.

In a preferred embodiment, step (5) of the just
mentioned aspect of the invention involves the steps of:
(a) in a model, sequentially replacing each amino acid
side chain of the candidate peptide with an alternative
25  amino acid side; and (b) rotating each replaced amino
acid side chain of each candidate peptide on its alpha
carbon bond to identify a minimum energy position.

In another aspect, the invention features a
recombinant, broadly neutralizing anti-HIV antibody,
30  composed of a recombinant kappa light chain framework
subgroup IV and human heavy chain framework subgroup II,
wherein at least five CDR amino acids selected from the
group consisting of Kabat light chain amino acids 27D,
92, 93, 94, 96 and Kabat heavy chain amino acids 33, 50

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52, 53, 56, 57, 95 and 100I are identical to the
corresponding 58.2 contact amino acids.

        In a further aspect, the invention features a
recombinant broadly neutralizing anti-HIV antibody,
5   composed of a recombinant kappa light chain framework
subgroup IV and human heavy chain framework subgroup II,
wherein at least five CDR amino acids selected from the
group consisting of Kabat light chain amino acids 27D,
28, 91, 92, 93, 94, and Kabat heavy chain amino acids 33,
10  35, 50, 52, 53, 54, 97 and 98 are identical to the
corresponding 59.1 contact amino acids.

        Other features and advantages of the invention
will be apparent from the following description of the
preferred embodiments and from the claims.

15                    Detailed Description

        Described herein is the precise molecular
structure assumed by RP142, an antigenic peptide, when it
is bound to the Fab of antibody 59.1, a broadly
neutralizing anti-HIV antibody, and the precise molecular
20  structure assumed by a second peptide, cyclic peptide AS,
when it is bound to the Fab of antibody 58.2, a second
broadly neutralizing antibody.  The structures of these
peptides are unexpected based on sequence-based
structural predictions.  Importantly, the atomic
25  structure of the antigen-antibody complexes are
described, and the atoms important for antigen-antibody
binding are identified.  This information permits one to
improve identified antigens so that they elicit a
stronger immune response, identify other molecules
30  capable of eliciting broadly neutralizing antibodies,
improve existing broadly neutralizing antibodies, and
design new broadly neutralizing antibodies.

        For any given antigen-antibody interaction it is
desirable to generate variant antigens which bind the
35  antibody with higher affinity, since such variant

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antigens are expected to be more antigenic.  Likewise it
is considered desirable to generate tighter binding
antibodies, since such antibodies are thought to be more
effective (e.g. have increased HIV neutralization
5  activity).  Rational design of new antigens and
antibodies is dependent on accurate structural
information which can be used for modeling antigen-
antibody interaction.  Once an antigen-antibody structure
has been modeled, one can predict what molecular changes
10 are consistent with improved (or unchanged) binding.

The flexibility of peptides makes it
extraordinarily difficult to predict the preferred
structure of a peptide composed of more than three or
four amino acids.  It is even more difficult to predict
15 the structure assumed by a bioactive peptide when it
binds to its receptor, since receptor-peptide
interactions are thought to significantly influence
peptide structure.  By deducing the structures assumed by
two different antigens when bound to two different
20 broadly neutralizing antibodies we have provided
important structural information which will permit the
design of structurally related peptide and non-peptide
antigens which are capable of eliciting broadly
neutralizing anti-HIV antibodies.

25      Recently developed computer-based methods which
permit the identification of compounds with a desired
molecular structure are currently being used to identify
compounds whose structure is similar all or a part of a
compound of interest.  These computer-based methods fall
30 into two broad classes: database methods and *de novo*
design methods.  In database methods the compound of
interest is compared to all compounds present in a
database of chemical structures and compounds whose
structure is in some way similar to the compound of
35 interest are identified.  The structures in the database

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are based on either experimental data, generated by NMR or x-ray crystallography, or modeled three-dimensional structures based on two-dimensional data. In *de novo* design methods models of compounds whose structure is in

5  some way similar to the compound of interest are generated by a computer program using information derived from known structures and/or theoretical rules.

The success of both database and *de novo* methods in identifying compounds with activities similar to the

10  compound of interest depends on the identification of the functionally relevant portion of the compound of interest. For drugs, the functionally relevant portion is referred to as a pharmacophore. A pharmacophore then is an arrangement of structural features and functional

15  groups important for biological activity. Similarly, one can identify one or more pharmacophores for a given antigen. In this case the pharmacophore is a group of atoms that play an important role in antibody binding (and therefore elicitation of antibodies).

20       The data provided herein concerning the structures of two antigen-antibody complexes permits the identification of pharmacophores important for the elicitation of broadly neutralizing antibodies and removes the barrier to identifying other molecules

25  capable of eliciting broadly neutralizing antibodies.

Programs suitable for generating predicted three-dimensional structures from two-dimensional data include: Concord (Tripos Associates, St. Louis. MO), 3-D Builder (Chemical Design Ltd., Oxford, U.K.), Catalyst (Bio-CAD

30  Corp., Mountain View, CA), Daylight (Abbott Laboratories, Abbott Park, IL). Programs suitable for searching three-dimensional databases to identify molecules bearing a desired pharmacophore include: MACCS-3D and ISIS/3D (Molecular Design Ltd., San Leandro, CA), ChemDBS-3D

35  (Chemical Design Ltd., Oxford, U.K.), Sybyl/3DB Unity

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(Tripos Associates, St. Louis. MO). Programs suitable
for pharmacophore selection and design include: DISCO
(Abbott Laboratories, Abbott Park, IL), Catalyst (Bio-CAD
Corp., Mountain View, CA), and ChemDBS-3D (Chemical
5   Design Ltd., Oxford, U.K.). Databases of chemical
structures are available from Cambridge Crystallographic
Data Centre (Cambridge, U.K.) and Chemical Abstracts
Service (Columbus, OH). *De novo* design programs include
Ludi (Biosym Technologies Inc., San Diego, CA) and
10  Aladdin (Daylight Chemical Information Systems, Irvine
CA).

Structural Data

        The coordinates for antibody 58.2 bound to peptide
AS are presented in Appendix A in standard Brookhaven
15  database format; Peptide AS is a cyclic peptide having
the sequence JSIGPGRAFGZC where J and Z are connected by
a hydrazone linkage and are represented by:
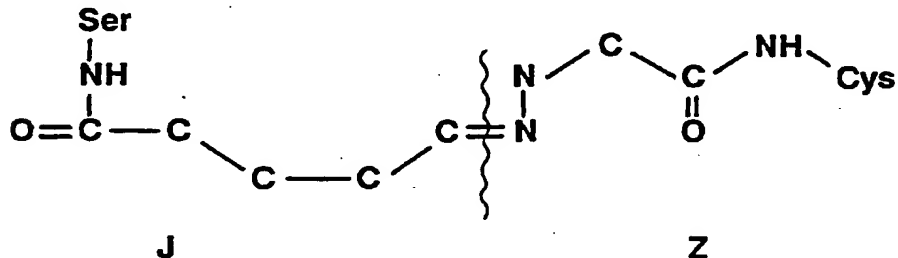


The light chain atoms are listed first starting with the
amino terminal Asp (amino acid 1001) and ending with the
20  carboxyl terminal Glu (amino acid 1215). The heavy chain
atoms are then listed beginning with the amino terminal
Asp (amino acid 2001) and ending with the carboxyl
terminal Arg (amino acid 2226). The peptide atoms are
listed next beginning with Gly (amino acid 3002) and
25  ending with Gly (amino acid 3012).
        The coordinates for antibody 59.1 bound to peptide
RP142 (HIGPGRAFYT) are presented in Appendix B in

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standard Brookhaven database format.  The light chain
atoms are listed first starting with the amino terminal
Asp (amino acid 1) and ending with the carboxyl terminal
Arg (amino acid 215).  The heavy chain atoms are then
5   listed beginning with the amino terminal Gln (amino acid
1001) and ending with the carboxyl terminal Thr (amino
acid 1221).  The peptide atoms are listed next beginning
with His (amino acid 2002) and ending with Thr (amino
acid 2011).
10          The contact data for antibody 58.2 and the AS
peptide are presented in Table 1 in standard Brookhaven
database notation.
            The contact data for antibody 59.1 and RP142
peptide are presented in Table 2 in standard Brookhaven
15  database notation.  Thus the first column indicates the
bond type (van der Waals, hydrogen bond or short hydrogen
bond).  The second column indicates the antibody atom
involved.  The amino acid are indicated first by their
single letter code where the prefix "1" indicates the
20  light chain and the prefix "2" indicates the heavy chain.
The amino acid number (according to the numbering scheme
above) is indicated next followed by the identification
of the atom.  The third column indicates the peptide
amino acid involved by its single letter code (with the
25  prefix "3" followed in the next column by the amino acid
number (according to the numbering scheme above) followed
by the identification of the atom involved.  The last
column indicates the bond length in angstroms.  Thus, for
the first contact listed, there is a van der Waals
30  interaction between the gamma oxygen of serine 31 of the
light chain and the alpha carbon of glycine 4 of the
peptide, and the bond is 3.45Å long.
58.2 Structure
            The data presented in Appendix A for antibody 59.1
35  bound to cyclic peptide AS show that the peptide adopts a

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relatively flat conformation. The GPGR sequence adopts a
type I turn conformation, and additional turns are
evident. The peptide is seen to lie flat in the antibody
combining site with the Arg side chain buried deeply in
5   the binding pocket. Light chain CDRs L1 and L3 are near
the IGPGR sequence in the peptide, making several
hydrophobic contacts. The Phe residue of the peptide is
only in contact with CDR H2, and in particular is stacked
with the imidazole ring of His-53. CDRs H1 and H3 are in
10  contact with the ends of the peptide. The buried Arg
side chain is contacted by several residues including
Asp-98 and Leu-100 of the light chain and Glu-99, Tyr-33,
and His-36 of the heavy chain. There are thus two
positive and two negative charges in the binding pocket
15  when the peptide is bound. This structure is consistent
with immunological data which suggest that the epitope
for this antibody is HIGPGRAF, in which many different
amino acids are tolerated at the underlined positions.
The specificity for the Phe residue may be eliminated by
20  mutating CDR H2 and the specificity for the His residue
may be eliminated by mutating CDR H3.

     Table 1 lists the contacts between cyclic peptide
AS and antibody 58.2. Any subset of at least five and
preferably at least seven contacting atoms, up to 10-15
25  atoms, can constitute a pharmacophore which can be used
to identify structurally related compounds using any of
the modeling programs listed herein or any similar
structure modeling program. By a contact between atoms
on the antibody and antigen is meant a hydrogen bond or a
30  Van der Waals interaction; only contacting atoms pairs
are listed in Table 2.

     Once one or more suitable compounds have been
identified, their structures can be modeled and docked
with a computer model of antibody 58.2 (or 59.1) to look
35  for the presence of unwanted repulsive interactions or

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distortions.  Molecular mechanics can then be used to
calculate and minimize conformational energy and maximize
attractive interactions.

59.1 Structure

5        The data presented in Appendix B for antibody 58.2
bound to peptide RP142 show that the peptide adopts a
relatively flat conformation.  Only the IGPGRAFY sequence
of RP142 is visible in the structure; presumably because
the rest of the peptide is floppy.  While this peptide,
10  like the cyclic AS peptide, adopts several turns after
the GPGR sequence, its backbone conformation differs from
that of the cyclic AS peptide.  The Arg side chain is
buried, making contacts with Asp-98 and Asn-95 of the
light chain and His-102 of the heavy chain, as well as
15  the CDR L3 backbone.  The is a unusual disulfide linkage
between Cys-35 of CDR H1 and Cys-54 of CDR H2.  This
linkage is in close contact with the Phe side chain of
the peptide.

        Immunochemical studies suggest that antibody 59.1
20  recognizes the sequence GPGRAF.  This is consistent with
the present structural data.  The data suggest an
explanation for the fact that 59.1 binds the HIV-III$_B$
sequence more strongly than the HIV-MN sequence.  In HIV-
III$_B$ a Arg replaces the Ile of HIV-MN and it appears the
25  positively charged Arg side chain would be in close
contact with Glu-97 of CDR L3 providing an electrostatic
contact not present in a complex between 59.1 and an HIV-
MN peptide.

        Table 2 lists the contacts between RP142 and
30  antibody 59.1.  Any subset of at least five and
preferably at least seven atoms can constitute a
pharmacophore which can be used to identify structurally
related compounds using any of the modeling programs
listed herein or any similar structure modeling program.

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Once one or more suitable compounds have been
identified, their structures can be modeled and docked
with a computer model of antibody 59.1 (or 58.2) to look
for the presence of unwanted repulsive interactions or
5    distortions.   Molecular mechanics can then be used to
calculate and minimize conformational energy and maximize
attractive interactions.

Generation and Screening of Broadly Neutralizing
Antibodies

10       Novel prospective antigens identified using the
methods described herein can be used to generate broadly
neutralizing anti-HIV antibodies using standard
techniques.   Described below are methods for generating
antibodies using the novel antigens and screening the
15   antibodies so produced to identify those with
particularly significant broadly neutralizing activity.
Methods for preparing and analyzing antibodies directed
towards the V3 loop of a particular HIV-1 isolates (HIV-
MN or an HIV-MN viral variant), are also described in
20   U.S. Application No. 07/665,306, filed March 6, 1991 and
in PCT Publication No. WO 91/15078, assigned to the same
assignee and hereby incorporated by reference.

Molecules to be used as immunogens can be either
unconjugated or conjugated to an immunogenic carrier,
25   e.g., keyhole limpet hemocyanin (KLH) or ovalbumin, using
succinyl maleimidomethyl cyclohexanylcarboxylate (SMCC)
as a conjugation agent using standard techniques.   The
molecules can be prepared for immunization by
emulsification in complete Freund's adjuvant or other
30   similar methods according to standard techniques.

Antibodies may be prepared by intraperitoneal
immunization of mouse strains (e.g., Balb/c, C57BL/6,
A.SW, B10.BR, or B10.A, Jackson Labs., Bar Harbor, ME).
Immunized mice can be given booster immunizations of the
35   immunogen, either in an emulsification of incomplete
Freund's adjuvant or in soluble form (e.g, two to three

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times at two to four week intervals) following the
initial immunization. Mice were bled and the sera
assayed for the presence of antibodies reactive with the
immunogen or RP142. Mice showing a strong serological
5    response are boosted, and (3-5 days later) spleen cells
from these mice are fused with, for example, NS-1
(American Type Culture Collection, Rockville, MD,
Accession No. TIB18), SP2-0 (ATCC No. CRL8287, CRL8006),
or P3.X63.AG8.653 myeloma cells incapable of secreting
10   both heavy and light immunoglobulin chains (Kearney et
al., J. Immunol. 123:1548, 1979) by standard procedures
based on the method of Kohler and Milstein, (Nature
256:495, 1975).

        Supernatants from hybridomas which appeared 6-21
15   days after fusion are screened for production of
antibodies by an ELISA screening assay using the
immunizing antigen or RP142 using standard techniques.

        For example, if RP142 is used in the screening,
each well of a 96-well Costar flat-bottom microtiter
20   plate is coated with the peptide by placing a 50 $\mu$l
aliquot of a PBS solution containing the peptide at a
final concentration of 0.1-10 $\mu$g/ml in each well. The
peptide solution is then aspirated and replaced with PBS
+ 0.5% BSA. Following incubation, the wells are
25   aspirated, washed, and 50 $\mu$l of hybridoma supernatant is
added. Following incubation, the wells are washed 3
times with PBS, and then incubated with 50 $\mu$l of an
appropriate dilution of goat anti-mouse immunoglobulin
conjugated with horseradish peroxidase (HRP, Zymed
30   Laboratories, San Francisco, CA). The wells are washed
again 3 times with PBS and 50 $\mu$l of 1mM ABTS (2,2 azino-
bis (3-ethylbenzthiazoline-6-sulfonic acid) in 0.1M Na-
Citrate, pH 4.2, to which a 1:1000 dilution of 30% $H_2O_2$
had been added), the substrate for HRP, is added to

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detect bound antibody.  HRP activity is monitored by
measuring the absorbance at 410nm.

A peptide titration assay can be used as an
initial screen to predict if a given anti-V3 loop
5  antibody will have strong neutralization activity.  In
this assay, the antibody is tested for its ability to
prevent syncytia formation among gp120 expressing CD4+
cells in the presence of competitor peptide whose
sequence is derived from a V3 loop sequence.  This assay
10  can be used to test for potential neutralization activity
of any anti-V3 loop antibody towards any HIV isolate by
using a peptide derived from the V3 loop from the HIV
isolate of interest as the competitor.

Syncytia formation is measured in the presence of
15  an anti-V3 monoclonal antibody mixed with one or more
test peptides representing V3 loop sequences of a variety
of HIV isolates.

In the peptide titration assay, the test peptide,
at a series of concentrations ranging from $10\mu$M to
20  $0.01\mu$M, is added to anti-V3 loop antibody (at 5 times the
concentration required for the 90% endpoint in an Std. SN
assay, described below), incubated for 30' at 37° and
then added to CEM-ss CD4+ cells expressing HIV-MN gp120.
These cells express gp120 because they are infected with
25  a recombinant vaccinia virus that encodes the HIV-MN env
gene.

The HIV gp120 envelope protein produced and
presented on the surface of these cells enables them to
bind to the CD4 receptor on other cells, resulting in
30  cell fusion and the formation of syncytia.  Antibodies
that bind to the V3 loop of the gp120-expressing cells
(anti-V3 loop antibodies) can inhibit syncytia formation.
If the test peptide competes with the gp120 epitope
recognized by the antibody for binding with the anti-V3
35  loop antibody, syncytia formation occurs.  Conversely, if

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the test peptide does not compete with the cell surface
epitope recognized by the antibody for binding with the
anti-V3 loop antibody, syncytia formation in the presence
of peptide is inhibited relative to syncytia formation in
5  the absence of the peptide.

Construction of a recombinant vaccinia virus
capable of expressing the full-length HIV envelope gene
from a vaccinia virus promoter is described in EP
Publication No. 0 243 029, hereby incorporated by
10  reference.  The recombinant vector pSC25, containing the
HIV env gene and the lacZ gene of E. coli expressed from
a second vaccinia virus promoter, and flanked by vaccinia
viral sequences which together encode thymidine kinase
(TK), was used to produce the recombinant virus.
15       A recombinant vector that contains DNA encoding an
envelope gene having the specificity of the HIV-MN
variant was prepared by removing a 570 bp BglII fragment
(encoding 180 amino acids) from the HIV-III$_B$ env gene
which spans the region of the VS loop in pSC25, and
20  replacing it with the analogous BglII fragment from the
HIV-MN env gene.  The resulting plasmid, pSCR2502,
contained a hybrid envelope gene which encoded an
envelope protein having the principal neutralizing domain
of the MN virus and the remainder of the env gene
25  sequence from the HIV-III$_B$ envelope.

A smaller region of the HIV-MN gp160 protein can
be used in place of the 180 amino acid replacement just
described; e.g., DNA encoding the 36 amino acid V3 loop
from any HIV strain can be inserted into the envelope-
30  encoding DNA in place of the corresponding III$_B$ DNA
sequence.  Alternatively, a recombinant could be used
which contains the complete HIV-MN env gene.  Multiple
HIV envelope expressing strains are useful for assessing
the specificity of an antibody.

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The recombinant vector pSCR2502 was transfected
into CV-1 host cells that had been pre-infected with
vaccinia virus containing an intact TK gene.  The HIV
envelope gene was integrated into the viral DNA by
5  homologous recombination between the TK sequences on the
vector and the TK sequences within the viral genome.
Recombinants containing the HIV envelope gene were
selected by infection of TK- cells and plating on media
containing bromodeoxyuridine (BUdR) and X-gal.  BUdR is
10 toxic to TK$^+$ cells and thus selects for TK$^-$ recombinants;
X-gal is a chromogenic substrate cleaved by the product
of the lacZ gene which results in the production of blue
plaques where the lacZ gene is expressed and further
identifies the recombinant virus which also contains the
15 HIV-env gene.

Two biological assays, the standard serial
neutralization assay (Std. SN) and the expanded serial
neutralization assay (Ex. SN), can be used to as a more
refined measurement HIV neutralizing activity.  These
20 assays use reverse transcriptase (RT) activity as a
measurement of viral activity.  The reduction in reverse
transcriptase activity under a given set of conditions is
a measure of viral neutralization.  A reduction in
reverse transcriptase activity of 90% under a given set
25 of conditions is a standard measure of viral
neutralization.

As described in more detail below, the Std. SN
assay measures RT activity at a single time point 7 days
post-infection.  As a result, it is possible to compare a
30 number of conditions with relatively few assays.
However, since each viral isolate has a characteristic
time course of infection, the 7 day time point used in
the Std. SN assay may not include the period of optimal
viral replication.  As result, in some instances, the
35 Std. SN assay will not permit accurate determination of

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the effectiveness of the added anti-HIV agents.   The Ex.
SN assay measures RT activity at several timepoints out
to 15 (or 20) days post-infection and thus is more likely
to include the period of optimal viral activity for any
5    given viral isolate.   Therefore, the Ex. SN assay is
preferred.

        Three HIV isolates are commonly used in the Std.
SN and Ex. SN assays: HIV-MN, HIV-IIIB and HIV-Ala.   HIV-
Ala is considered a relevant field isolate because it has
10   had low passage in CEM cells.   (The sequence of the HIV-
Ala V3 loop has been reported to be the most
representative of North American HIV isolates.)   The
viruses used in this assay can be propagated in H9 cells
(ATCC, Rockville, MD; or AIDS Research and Reference
15   Reagent Program, Rockville, MD) for 15-30 days to
establish a chronic cell line.   Newly formed virions are
harvested from the supernatant of infected cells and used
to infect test cultures as described below.

        Serial two-fold dilutions of a anti-V3 loop
20   antibody are incubated with 64 infectious units of HIV
virus for 30 minutes at 37°, and then added to CEM-ss
cells (50,000 cells per well in 96-well plates). After 7
days, cell free supernatants are harvested and assayed
for RT activity using the method of Willey et al. (J.
25   Virol. 62:139, 1988).   For determination of 90% and 50%
endpoints (i.e., reduction in RT activity by 90% or 50%),
densitometry readings of autoradiographs can be generated
at 410 nm using a Molecular Devices microplate reader.

        The Ex. SN assay is identical to the Std. SN assay
30   except that media is replenished twice during the course
of the assay (at day 7 post-infection and at day 12 post-
infection).   Aliquots are assayed for RT activity (as
described above) at 7, 12 and 15 days post-infection.

        An Infectivity Reduction Assay (IRA), which
35   measures the difference between the infectious dose of a

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virus in the presence and absence of a standard dilution
of an anti-HIV agent, can be used as an even more
stringent test of neutralization activity.  In contrast
to the Std. SN and Ex. SN assays described above, IRA
5  conditions promote cell division and virus replication,
and thus it is apt to more closely predict neutralization
potential *in vivo*.

      Both laboratory HIV strains and HIV field isolates
are tested in the IRA using either CEM-ss cells or PBMC
10  (peripheral blood mononuclear cells, prepared by standard
methods), which are more susceptible to infection thought
to be more like *in vivo* situations.  Briefly, the IRA is
performed as follows.  Viral isolates are serially
diluted 10-fold in RPMI containing 10% fetal bovine
15  serum.  For each dilution of virus, approximately 20 $\mu$g
of antibody is then inoculated onto 1 x $10^6$ CEM-ss or
PBMC in a 24-well plate.  The cultures are maintained for
the appropriate number of days (calibrated for the virus
used, for example, HIV-MN is 21 days and 14 days for Duke
20  6587-5. Cultures are split 3 times a week (if PBMCs are
used, they are supplemented with IL-2 three times a week
to maintain optimal virus replication conditions).  Virus
replication (infectious units) is monitored by reverse
transcriptase activity as described above.  The
25  infectious titer of virus plus the antibody is compared
to the infectious titer of virus plus media.

Engineered Antibodies

      The data described herein can be used to generate
recombinant antibodies simply by engineering a
30  recombinant antibody to have a suitable framework
(preferably subgroup IV or III for the kappa light chain
and subgroup II for the heavy chain) and CDRs that
include, at the relevant positions some or all of the
contact amino acids identified in antibody 58.2 or 59.1.
35  Tables 3 and 4 list the Kabat amino acid numbers

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corresponding to the identified contact amino acids in antibodies 58.2 and 59.1 respectively. This information can be used to identify which amino acids should be exchanged for contact amino acids.

5        Since, for the most part, monoclonal antibodies are produced in species other than humans, they are often immunogenic to humans. In order to successfully use antibodies in the treatment of humans, it may be necessary to create chimeric antibody molecules wherein

10  the antigen binding portion (the variable region) is derived from one species, and the portion involved with providing structural stability and other biological functions (the constant region) is derived from a human antibody. Methods for producing chimeric antibodies in

15  which the variable domain is derived from one species and the constant domain is derived from a second species are well known to those skilled in the art. See, for example, Neuberger et al., WO Publication No. 86/01533, priority September 3, 1984; Morrison et al., EP

20  Publication No. 0,173,494, priority August 27, 1984. An alternative method, in which an antibody is produced by replacing only the complementarity determining regions (CDRs) of the variable region with the CDRs from an immunoglobulin of the desired antigenic specificity, is

25  described by Winter (GB Publication No. 2,188,638, priority March 27, 1986). Murine monoclonals can be made compatible with human therapeutic use by producing an antibody containing a human Fc portion (Morrison, *Science* 229:1202, 1985). Single polypeptide chain antibodies are

30  also more easily produced by recombinant means than are conventional antibodies. Ladner et al. (U.S. Patent No. 4,946,778) describes methods for producing single polypeptide chain antibodies and these methods may be adapted to produce antibodies useful in the methods and

35  compositions of the invention. Established procedures

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would allow construction, expression, and purification of such a hybrid monoclonal antibody. Quadromas can be used to generate bispecific antibodies (Reading et al., U.S. Patent Nos. 4,474,893 and 4,714,681). The patents and
5  publications referred to herein are hereby incorporated by reference.

TABLE 1

| | | | | | |
|---|---|---|---|---|---|
| VDW | 1E | 31OG | 3G | 4CA | 1 | 3.45 |
| VDW | 1Y | 32CD1 | 3P | 5CG | 1 | 3.74 |
| VDW | 1Y | 32CD1 | 3P | 5CD | 1 | 3.88 |
| VDW | 1Y | 32CE1 | 3P | 5CG | 1 | 3.56 |
| VDW | 1Y | 32CE1 | 3P | 5CD | 1 | 3.66 |
| VDW | 1F | 36CD1 | 3P | 5CD | 1 | 4.04 |
| VDW | 1F | 36CE1 | 3P | 5CD | 1 | 3.45 |
| VDW | 1F | 36CE1 | 3P | 5CG | 1 | 4.04 |
| VDW | 1F | 36CE2 | 3P | 5CD | 1 | 3.98 |
| VDW | 1F | 36CZ | 3P | 5CD | 1 | 3.42 |
| VDW | 1F | 36CZ | 3P | 5CG | 1 | 3.58 |
| VDW | 1N | 95CA | 3R | 7NH2 | 1 | 3.68 |
| VDW | 1N | 95CG | 3R | 7NH2 | 1 | 3.38 |
| RBOND | 1N | 95OD1 | 3R | 7NH2 | 1 | 2.66 |
| RBOND | 1N | 95OD1 | 3R | 7NH1 | 1 | 3.37 |
| VDW | 1N | 95OD1 | 3R | 7CZ | 1 | 3.47 |
| VDW | 1N | 95C | 3R | 7NH2 | 1 | 2.94 |
| VDW | 1N | 95C | 3R | 7CZ | 1 | 3.83 |
| SHORTRBD | 1N | 95O | 3R | 7NH2 | 1 | 2.42 |
| VDW | 1N | 95O | 3R | 7CZ | 1 | 3.55 |
| VDW | 1N | 96C | 3R | 7CZ | 1 | 3.54 |
| RBOND | 1N | 96O | 3G | 4N | 1 | 2.81 |
| RBOND | 1N | 96O | 3R | 7NE | 1 | 3.40 |
| VDW | 1N | 96O | 3I | 3CB | 1 | 3.29 |
| VDW | 1N | 96O | 3I | 3CA | 1 | 3.32 |
| VDW | 1E | 97N | 3R | 7CZ | 1 | 3.74 |
| VDW | 1E | 97CA | 3R | 7CD | 1 | 3.80 |
| VDW | 1E | 97CA | 3R | 7CZ | 1 | 3.87 |
| VDW | 1E | 97CB | 3I | 3CG2 | 1 | 3.88 |
| VDW | 1D | 98CG | 3R | 7NH1 | 1 | 3.37 |
| VDW | 1D | 98CG | 3R | 7CD | 1 | 3.59 |
| VDW | 1D | 98OD1 | 3R | 7CD | 1 | 3.26 |
| RBOND | 1D | 98OD2 | 3R | 7NH1 | 1 | 2.64 |
| VDW | 2N | 33CA | 3F | 9CE1 | 1 | 3.96 |
| VDW | 2N | 33CA | 3F | 9CZ | 1 | 4.03 |
| VDW | 2N | 33O | 3F | 9CE1 | 1 | 3.60 |
| VDW | 2C | 35SG | 3F | 9CE1 | 1 | 3.97 |
| VDW | 2C | 35SG | 3A | 8CB | 1 | 4.01 |
| VDW | 2R | 52NE | 3A | 8CB | 1 | 3.62 |
| VDW | 2R | 52CZ | 3A | 8CB | 1 | 3.70 |
| VDW | 2R | 52NH2 | 3A | 8CB | 1 | 3.75 |
| VDW | 2C | 54CB | 3F | 9CD1 | 1 | 4.08 |
| VDW | 2C | 54SG | 3A | 8CB | 1 | 3.52 |
| VDW | 2Y | 55CD2 | 3F | 9CD1 | 1 | 3.91 |
| VDW | 2Y | 55CD2 | 3F | 9CE1 | 1 | 4.01 |
| VDW | 2Y | 55CE2 | 3F | 9CD1 | 1 | 3.36 |
| VDW | 2Y | 55CE2 | 3F | 9CE1 | 1 | 3.60 |
| VDW | 2Y | 55CE2 | 3F | 9CG | 1 | 4.02 |
| VDW | 2E | 56CD | 3F | 9CB | 1 | 3.77 |
| VDW | 2E | 56OE2 | 3F | 9CB | 1 | 3.63 |
| VDW | 2H | 102CB | 3F | 9CZ | 1 | 3.87 |
| VDW | 2H | 102CB | 3F | 9CE1 | 1 | 3.89 |
| VDW | 2H | 102CD2 | 3A | 8CB | 1 | 3.42 |
| VDW | 2H | 102CD2 | 3F | 9CE1 | 1 | 3.69 |
| VDW | 2H | 102CD2 | 3A | 8N | 1 | 3.73 |
| VDW | 2H | 102CD2 | 3F | 9CZ | 1 | 3.75 |
| VDW | 2H | 102CE1 | 3R | 7CB | 1 | 3.90 |
| VDW | 2H | 102CE1 | 3R | 7CZ | 1 | 4.09 |
| RBOND | 2H | 102NE2 | 3A | 8N | 1 | 3.09 |
| VDW | 2H | 102NE2 | 3A | 8CB | 1 | 3.25 |
| VDW | 2H | 102NE2 | 3R | 7CB | 1 | 3.65 |
| VDW | 2H | 102NE2 | 3A | 8CA | 1 | 3.77 |
| RBOND | 2H | 102O | 3G | 6N | 1 | 2.76 |
| VDW | 2H | 102O | 3P | 5CA | 1 | 3.20 |
| VDW | 2H | 102O | 3P | 5CB | 1 | 3.26 |
| VDW | 2H | 102O | 3P | 5C | 1 | 3.54 |
| VDW | 2H | 102O | 3G | 6CA | 1 | 3.70 |
| VDW | 2H | 103SD | 3F | 9CE2 | 1 | 3.45 |
| VDW | 2H | 103SD | 3F | 9CZ | 1 | 4.03 |
| VDW | 2H | 103CE | 3G | 6CA | 1 | 3.85 |
| VDW | 2H | 103O | 3P | 5CB | 1 | 3.31 |

## TABLE 2

```
0.010  -2.500   3.400   3.300   4.:10   0.000        1       1
                                                      2     2    1    1    0
       SHORTHBDHBOND   SHORTVDWVDW
D  1CB   1R4410    2G442C    3G4520      3
   1.000    1.000    1.000    1.000    1.000    1.000   90.000  90.000  90.000         1
   ALA CYS ASP GLU PHE GLY HIS ILE LYS LEU MET ASN PRO GLN ARG SER THR VAL TRP TYR
AAM HAT
A   C   D   E   F   G   H   I   K   L   M   N   P   Q   R   S   T   V   W   Y
J   O
   1.0  0.0  0.0  0.0  1.0  0.0  0.0  0.0  1.0  0.0  0.0  0.0    1
```

FIRST AND LAST ATOM NUMBERS OF SETS
```
        1       3384

     3385      3452
```

```
0*****    1F 31CB
 VDW      1  3P446CD    3.76
0*****    1F 31CG
 VDW      1  3P446CD    3.48    1  3P446CG    3.90
0*****    1F 31CD1
 VDW      1  3P446CG    3.88    1  3P446CD    3.97
0*****    1F 31CD2
 VDW      1  3P446CD    3.63
0*****    1F 36CD2
 VDW      1  3G445CA    3.92
0*****    1F 36CE2
 VDW      1  3G445N     3.23    1  3G445CA    3.56    1  3I444C    3.60    1  3I444CA   4.02
0*****    1F 36CZ
 VDW      1  3G445N     3.75    1  3G445CA    3.79    1  3I444C    3.89
0*****    1H 96ND1
 VDW      1  3P446CD    3.67
0*****    1H 96CE1
 VDW      1  3P446CG    3.30    1  3P446CD    3.49
0*****    1H 96NE2
 VDW      1  3P446CG    3.54
0*****    1H 96O
 HBOND    1  3G447N     3.19
 VDW      1  3G445CA    3.50    1  3G445C     3.51    1  3P445CD   3.69
0*****    1E 97CA
 VDW      1  3G447C     3.60    1  3G447CA    3.65
0*****    1E 97CB
 VDW      1  3G447CA    3.42    1  3G447C     3.61
0*****    1D 98N
 HBOND    1  3G447O     2.93
 VDW      1  3G447C     3.55
0*****    1D 98CG
 VDW      1  3R448CD    3.57    1  3R448CA    3.97
0*****    1D 98OD1
 HBOND    1  3A449N     3.25
0*****    1D 98OD2
 HBOND    1  3R448NH1   3.06    1  3R448NE    3.36
 VDW      1  3R448CD    2.98    1  3R448CZ    3.38
0*****    1L100CD1
 VDW      1  3R448NE    3.52    1  3R448CZ    3.66
0*****    2Y248CD1
 VDW      1  3G4520     3.67
0*****    2Y248CE1
 VDW      1  3G451CA    3.40    1  3G451N     3.71
0*****    2Y248CZ
 VDW      1  3I444CD1   3.89    1  3G451CA    4.10
0*****    2Y248OH
 HBOND    1  3F450O     2.77
 VDW      1  3F450C     3.38    1  3I444CD1   3.50
0*****    2Y266CE1
 VDW      1  3R448NH1   3.59
0*****    2Y266CE2
```

TABLE 2 (p. 2 of 2)

```
   VDW        1  3F450CD1   3.78
O•••••  2Y266CZ
   VDW        1  3R448NH1   3.72    1  3F450CD1   4.09
O•••••  2Y266OH
   VDW        1  3F450CD1   3.54
O•••••  2H268CB
   VDW        1  3F450CG    3.95    1  3F450CD2   4.08
O•••••  2H268CG
   VDW        1  3F450CG    3.67    1  3F450CD2   3.67    1  3F450CB   3.81
O•••••  2H268CD2
   VDW        1  3F450CB    3.50    1  3F450CG    3.90
O•••••  2H268ND1
   VDW        1  3F450CD2   3.38
O•••••  2H268CE1
   VDW        1  3F450CD2   3.72    1  3F450CB    3.97
O•••••  2H268NE2
   VDW        1  3F450CB    3.61
O•••••  2Y269CE2
 SHORTVDW     1  3G452O     2.91
   VDW        1  3G452C     3.93
O•••••  2Y269CZ
   VDW        1  3G452O     3.47
O•••••  2Y269OH
 HBOND        1  3G452O     3.27
O•••••  2G272CA
   VDW        1  3F450CZ    3.74    1  3F450CE2   3.96
O•••••  2G272C
   VDW        1  3F450CZ    3.52
O•••••  2T273N
   VDW        1  3F450CZ    3.59
O•••••  2T273C
   VDW        1  3F450CE1   3.80
O•••••  2T273O
   VDW        1  3F450CE1   3.39    1  3F450CZ    3.71
O•••••  2E314CD
   VDW        1  3R448NH2   3.09
O•••••  2E314OE1
 HBOND        1  3R448NH2   2.79
   VDW        1  3R448CZ    3.58
O•••••  2E314OE2
 HBOND        1  3R448NH2   2.66
O•••••  2Y326CD2
   VDW        1  3I444CG2   4.03
```

| IS | SHORTHBD | HBOND | SHORTVDW | VDW | | TOTAL |
|---|---|---|---|---|---|---|
| 1 | 0 | 9 | 1 | 67 | 0 | 77 |

1
STOP:

D'

**TABLE 3:** CONVERSION FOR 58.2 NUMBERS TO KABAT NUMBERS

| Antibody Amino Acid | | | Kabat Number |
|---|---|---|---|
| | IF | 31 | 27D |
| | IH | 96 | 92 |
| light chain | IE | 97 | 93 |
| | ID | 98 | 94 |
| | IL | 100 | 96 |
| | 2Y | 248 | 33 |
| | 2Y | 266 | 50 |
| | 2H | 268 | 52 |
| heavy chain | 2Y | 269 | 53 |
| | 2G | 272 | 56 |
| | 2T | 273 | 57 |
| | 2E | 314 | 95 |
| | 2Y | 326 | 100 I |

**TABLE 4:** CONVERSION FOR 59.1 NUMBERS TO KABAT NUMBERS

| Antibody Amino Acid | | | Kabat Amino Acid Number |
|---|---|---|---|
| | IS | 31 | 27D |
| | IY | 32 | 28 |
| | IF | 36 | 32 |
| lt. chain | IN | 95 | 91 |
| | IN | 96 | 92 |
| | IE | 97 | 93 |
| | ID | 98 | 94 |
| | 2N | 33 | 33 |
| | 2C | 35 | 35 |
| | 2R | 52 | 50 |
| | 2C | 54 | 52 |
| hvy chain | 2Y | 55 | 53 |
| | 2E | 56 | 54 |
| | 2H | 102 | 97 |
| | 2M | 103 | 98 |

| ATOM | 1 | CB | ASP | 1001 | 85.370 | 62.391 | -31.445 | 1.00 | 107.12 | lite |
|------|---|----|-----|------|--------|--------|---------|------|--------|------|
| ATOM | 2 | CG | ASP | 1001 | 84.801 | 63.706 | -31.918 | 1.00 | 107.12 | lite |
| ATOM | 3 | OD1 | ASP | 1001 | 85.454 | 64.719 | -31.470 | 1.00 | 107.12 | lite |
| ATOM | 4 | OD2 | ASP | 1001 | 83.805 | 63.700 | -32.681 | 1.00 | 107.12 | lite |
| ATOM | 5 | C | ASP | 1001 | 85.944 | 60.436 | -30.437 | 1.00 | 55.44 | lite |
| ATOM | 6 | O | ASP | 1001 | 87.065 | 60.065 | -30.862 | 1.00 | 107.12 | lite |
| ATOM | 9 | N | ASP | 1001 | 83.525 | 60.418 | -30.769 | 1.00 | 55.44 | lite |
| ATOM | 11 | CA | ASP | 1001 | 84.760 | 60.891 | -31.422 | 1.00 | 55.44 | lite |
| ATOM | 12 | N | ILE | 1002 | 85.345 | 60.870 | -29.236 | 1.00 | 34.13 | lite |
| ATOM | 14 | CA | ILE | 1002 | 85.495 | 60.593 | -27.774 | 1.00 | 34.13 | lite |
| ATOM | 15 | CB | ILE | 1002 | 84.909 | 61.731 | -26.797 | 1.00 | 8.03 | lite |
| ATOM | 16 | CG2 | ILE | 1002 | 85.512 | 61.588 | -25.453 | 1.00 | 8.03 | lite |
| ATOM | 17 | CG1 | ILE | 1002 | 85.244 | 63.057 | -27.243 | 1.00 | 8.03 | lite |
| ATOM | 18 | CD1 | ILE | 1002 | 84.910 | 64.302 | -26.393 | 1.00 | 8.03 | lite |
| ATOM | 19 | C | ILE | 1002 | 84.762 | 59.464 | -27.051 | 1.00 | 34.13 | lite |
| ATOM | 20 | O | ILE | 1002 | 83.576 | 59.480 | -27.290 | 1.00 | 8.03 | lite |
| ATOM | 21 | N | VAL | 1003 | 85.382 | 58.539 | -26.318 | 1.00 | 17.42 | lite |
| ATOM | 23 | CA | VAL | 1003 | 84.883 | 57.326 | -25.720 | 1.00 | 17.42 | lite |
| ATOM | 24 | CB | VAL | 1003 | 85.628 | 56.152 | -26.304 | 1.00 | 23.27 | lite |
| ATOM | 25 | CG1 | VAL | 1003 | 85.687 | 54.925 | -25.400 | 1.00 | 23.27 | lite |
| ATOM | 26 | CG2 | VAL | 1003 | 84.939 | 55.797 | -27.559 | 1.00 | 23.27 | lite |
| ATOM | 27 | C | VAL | 1003 | 85.263 | 57.409 | -24.264 | 1.00 | 17.42 | lite |
| ATOM | 28 | O | VAL | 1003 | 86.408 | 57.673 | -23.896 | 1.00 | 23.27 | lite |
| ATOM | 29 | N | LEU | 1004 | 84.392 | 57.151 | -23.352 | 1.00 | 15.99 | lite |
| ATOM | 31 | CA | LEU | 1004 | 84.802 | 57.285 | -21.985 | 1.00 | 15.99 | lite |
| ATOM | 32 | CB | LEU | 1004 | 83.738 | 57.988 | -21.187 | 1.00 | 2.00 | lite |
| ATOM | 33 | CG | LEU | 1004 | 83.216 | 59.278 | -21.785 | 1.00 | 2.00 | lite |
| ATOM | 34 | CD1 | LEU | 1004 | 82.572 | 59.981 | -20.672 | 1.00 | 2.00 | lite |
| ATOM | 35 | CD2 | LEU | 1004 | 84.274 | 60.235 | -22.215 | 1.00 | 2.00 | lite |
| ATOM | 36 | C | LEU | 1004 | 85.012 | 55.884 | -21.487 | 1.00 | 15.99 | lite |
| ATOM | 37 | O | LEU | 1004 | 84.129 | 55.034 | -21.578 | 1.00 | 2.00 | lite |
| ATOM | 38 | N | THR | 1005 | 86.194 | 55.590 | -20.939 | 1.00 | 11.32 | lite |
| ATOM | 40 | CA | THR | 1005 | 86.498 | 54.275 | -20.365 | 1.00 | 11.32 | lite |
| ATOM | 41 | CB | THR | 1005 | 87.871 | 53.790 | -20.796 | 1.00 | 20.64 | lite |
| ATOM | 42 | OG1 | THR | 1005 | 87.918 | 53.980 | -22.222 | 1.00 | 20.64 | lite |
| ATOM | 44 | CG2 | THR | 1005 | 88.145 | 52.352 | -20.392 | 1.00 | 20.64 | lite |
| ATOM | 45 | C | THR | 1005 | 86.490 | 54.258 | -18.848 | 1.00 | 11.32 | lite |
| ATOM | 46 | O | THR | 1005 | 87.174 | 55.051 | -18.207 | 1.00 | 20.64 | lite |
| ATOM | 47 | N | GLN | 1006 | 85.721 | 53.366 | -18.225 | 1.00 | 25.89 | lite |
| ATOM | 49 | CA | GLN | 1006 | 85.668 | 53.204 | -16.771 | 1.00 | 25.89 | lite |
| ATOM | 50 | CB | GLN | 1006 | 84.232 | 53.152 | -16.301 | 1.00 | 19.74 | lite |
| ATOM | 51 | CG | GLN | 1006 | 83.593 | 54.465 | -16.610 | 1.00 | 19.74 | lite |
| ATOM | 52 | CD | GLN | 1006 | 82.307 | 54.720 | -15.849 | 1.00 | 19.74 | lite |
| ATOM | 53 | OE1 | GLN | 1006 | 81.393 | 55.298 | -16.419 | 1.00 | 19.74 | lite |
| ATOM | 54 | NE2 | GLN | 1006 | 82.094 | 54.345 | -14.591 | 1.00 | 19.74 | lite |
| ATOM | 57 | C | GLN | 1006 | 86.374 | 51.983 | -16.151 | 1.00 | 25.89 | lite |
| ATOM | 58 | O | GLN | 1006 | 86.114 | 50.805 | -16.414 | 1.00 | 19.74 | lite |
| ATOM | 59 | N | SER | 1007 | 87.371 | 52.300 | -15.346 | 1.00 | 22.37 | lite |
| ATOM | 61 | CA | SER | 1007 | 88.093 | 51.335 | -14.514 | 1.00 | 22.37 | lite |
| ATOM | 62 | CB | SER | 1007 | 89.606 | 51.495 | -14.641 | 1.00 | 41.25 | lite |
| ATOM | 63 | OG | SER | 1007 | 89.998 | 52.891 | -14.711 | 1.00 | 41.25 | lite |
| ATOM | 65 | C | SER | 1007 | 87.756 | 51.545 | -13.042 | 1.00 | 22.37 | lite |
| ATOM | 66 | O | SER | 1007 | 87.860 | 52.691 | -12.571 | 1.00 | 41.25 | lite |
| ATOM | 67 | N | CPR | 1008 | 87.199 | 50.548 | -12.329 | 1.00 | 12.06 | lite |
| ATOM | 68 | CD | CPR | 1008 | 87.269 | 50.449 | -10.869 | 1.00 | 12.90 | lite |
| ATOM | 69 | CA | CPR | 1008 | 86.843 | 49.242 | -12.873 | 1.00 | 12.06 | lite |
| ATOM | 70 | CB | CPR | 1008 | 87.337 | 48.270 | -11.863 | 1.00 | 12.90 | lite |
| ATOM | 71 | CG | CPR | 1008 | 86.974 | 48.955 | -10.567 | 1.00 | 12.90 | lite |
| ATOM | 72 | C | CPR | 1008 | 85.377 | 48.993 | -13.188 | 1.00 | 12.06 | lite |
| ATOM | 73 | O | CPR | 1008 | 84.463 | 49.697 | -12.791 | 1.00 | 12.90 | lite |
| ATOM | 74 | N | ALA | 1009 | 85.141 | 47.913 | -13.879 | 1.00 | 10.22 | lite |
| ATOM | 76 | CA | ALA | 1009 | 83.797 | 47.439 | -14.178 | 1.00 | 10.22 | lite |
| ATOM | 77 | CB | ALA | 1009 | 83.997 | 46.099 | -14.826 | 1.00 | 16.61 | lite |
| ATOM | 78 | C | ALA | 1009 | 82.759 | 47.329 | -13.055 | 1.00 | 10.22 | lite |
| ATOM | 79 | O | ALA | 1009 | 81.598 | 47.675 | -13.156 | 1.00 | 16.61 | lite |
| ATOM | 80 | N | SER | 1010 | 83.282 | 46.801 | -11.962 | 1.00 | 21.71 | lite |
| ATOM | 82 | CA | SER | 1010 | 82.685 | 46.595 | -10.633 | 1.00 | 21.71 | lite |

| ATOM | 83 | CB | SER | 1010 | 82.070 | 45.218 | -10.447 | 1.00 | 21.02 | lite |
|------|-----|------|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 84 | OG | SER | 1010 | 83.098 | 44.210 | -10.408 | 1.00 | 21.02 | lite |
| ATOM | 86 | C | SER | 1010 | 83.809 | 46.658 | -9.551 | 1.00 | 21.71 | lite |
| ATOM | 87 | O | SER | 1010 | 85.011 | 46.466 | -9.816 | 1.00 | 21.02 | lite |
| ATOM | 88 | N | LEU | 1011 | 83.497 | 46.934 | -8.303 | 1.00 | 17.66 | lite |
| ATOM | 90 | CA | LEU | 1011 | 84.491 | 46.861 | -7.270 | 1.00 | 17.66 | lite |
| ATOM | 91 | CB | LEU | 1011 | 85.325 | 48.131 | -7.182 | 1.00 | 21.04 | lite |
| ATOM | 92 | CG | LEU | 1011 | 84.733 | 49.417 | -6.673 | 1.00 | 21.04 | lite |
| ATOM | 93 | CD1 | LEU | 1011 | 85.860 | 50.335 | -6.228 | 1.00 | 21.04 | lite |
| ATOM | 94 | CD2 | LEU | 1011 | 83.856 | 50.035 | -7.747 | 1.00 | 21.04 | lite |
| ATOM | 95 | C | LEU | 1011 | 83.743 | 46.663 | -5.957 | 1.00 | 17.66 | lite |
| ATOM | 96 | O | LEU | 1011 | 82.613 | 47.222 | -5.814 | 1.00 | 21.04 | lite |
| ATOM | 97 | N | ALA | 1012 | 84.336 | 45.804 | -5.059 | 1.00 | 23.55 | lite |
| ATOM | 99 | CA | ALA | 1012 | 83.700 | 45.619 | -3.764 | 1.00 | 23.55 | lite |
| ATOM | 100 | CB | ALA | 1012 | 83.707 | 44.126 | -3.388 | 1.00 | 23.52 | lite |
| ATOM | 101 | C | ALA | 1012 | 84.331 | 46.433 | -2.614 | 1.00 | 23.55 | lite |
| ATOM | 102 | O | ALA | 1012 | 85.557 | 46.425 | -2.424 | 1.00 | 23.52 | lite |
| ATOM | 103 | N | VAL | 1013 | 83.546 | 47.167 | -1.819 | 1.00 | 12.72 | lite |
| ATOM | 105 | CA | VAL | 1013 | 84.104 | 47.992 | -0.795 | 1.00 | 12.72 | lite |
| ATOM | 106 | CB | VAL | 1013 | 84.090 | 49.354 | -1.416 | 1.00 | 11.12 | lite |
| ATOM | 107 | CG1 | VAL | 1013 | 83.914 | 50.409 | -0.374 | 1.00 | 11.12 | lite |
| ATOM | 108 | CG2 | VAL | 1013 | 85.476 | 49.632 | -2.062 | 1.00 | 11.12 | lite |
| ATOM | 109 | C | VAL | 1013 | 83.417 | 47.890 | 0.548 | 1.00 | 12.72 | lite |
| ATOM | 110 | O | VAL | 1013 | 82.198 | 47.906 | 0.673 | 1.00 | 11.12 | lite |
| ATOM | 111 | N | SER | 1014 | 84.200 | 47.773 | 1.626 | 1.00 | 15.29 | lite |
| ATOM | 113 | CA | SER | 1014 | 83.648 | 47.558 | 2.957 | 1.00 | 15.29 | lite |
| ATOM | 114 | CB | SER | 1014 | 84.708 | 47.048 | 3.923 | 1.00 | 22.02 | lite |
| ATOM | 115 | OG | SER | 1014 | 85.419 | 45.869 | 3.479 | 1.00 | 22.02 | lite |
| ATOM | 117 | C | SER | 1014 | 83.071 | 48.794 | 3.530 | 1.00 | 15.29 | lite |
| ATOM | 118 | O | SER | 1014 | 83.297 | 49.911 | 3.063 | 1.00 | 22.02 | lite |
| ATOM | 119 | N | LEU | 1015 | 82.332 | 48.617 | 4.601 | 1.00 | 28.55 | lite |
| ATOM | 121 | CA | LEU | 1015 | 81.657 | 49.779 | 5.166 | 1.00 | 28.55 | lite |
| ATOM | 122 | CB | LEU | 1015 | 80.651 | 49.346 | 6.220 | 1.00 | 41.01 | lite |
| ATOM | 123 | CG | LEU | 1015 | 79.176 | 49.659 | 5.836 | 1.00 | 41.01 | lite |
| ATOM | 124 | CD1 | LEU | 1015 | 78.929 | 51.201 | 5.834 | 1.00 | 41.01 | lite |
| ATOM | 125 | CD2 | LEU | 1015 | 78.873 | 49.018 | 4.446 | 1.00 | 41.01 | lite |
| ATOM | 126 | C | LEU | 1015 | 82.618 | 50.767 | 5.769 | 1.00 | 28.55 | lite |
| ATOM | 127 | O | LEU | 1015 | 83.538 | 50.400 | 6.497 | 1.00 | 41.01 | lite |
| ATOM | 128 | N | GLY | 1016 | 82.437 | 52.011 | 5.383 | 1.00 | 16.44 | lite |
| ATOM | 130 | CA | GLY | 1016 | 83.338 | 53.018 | 5.849 | 1.00 | 16.44 | lite |
| ATOM | 131 | C | GLY | 1016 | 84.638 | 53.012 | 5.084 | 1.00 | 16.44 | lite |
| ATOM | 132 | O | GLY | 1016 | 85.408 | 53.953 | 5.306 | 1.00 | 41.42 | lite |
| ATOM | 133 | N | GLN | 1017 | 84.934 | 52.051 | 4.173 | 1.00 | 32.14 | lite |
| ATOM | 135 | CA | GLN | 1017 | 86.213 | 51.995 | 3.404 | 1.00 | 32.14 | lite |
| ATOM | 136 | CB | GLN | 1017 | 86.221 | 50.642 | 2.631 | 1.00 | 56.32 | lite |
| ATOM | 137 | CG | GLN | 1017 | 87.560 | 49.880 | 2.559 | 1.00 | 56.32 | lite |
| ATOM | 138 | CD | GLN | 1017 | 87.674 | 48.754 | 1.478 | 1.00 | 56.32 | lite |
| ATOM | 139 | OE1 | GLN | 1017 | 87.202 | 47.583 | 1.634 | 1.00 | 56.32 | lite |
| ATOM | 140 | NE2 | GLN | 1017 | 88.294 | 49.091 | 0.313 | 1.00 | 56.32 | lite |
| ATOM | 143 | C | GLN | 1017 | 86.544 | 53.179 | 2.427 | 1.00 | 32.14 | lite |
| ATOM | 144 | O | GLN | 1017 | 86.490 | 54.403 | 2.760 | 1.00 | 56.32 | lite |
| ATOM | 145 | N | ARG | 1018 | 86.937 | 52.913 | 1.168 | 1.00 | 23.54 | lite |
| ATOM | 147 | CA | ARG | 1018 | 87.174 | 53.995 | 0.198 | 1.00 | 23.54 | lite |
| ATOM | 148 | CB | ARG | 1018 | 88.529 | 54.574 | 0.386 | 1.00 | 46.72 | lite |
| ATOM | 149 | CG | ARG | 1018 | 88.822 | 55.889 | -0.332 | 1.00 | 46.72 | lite |
| ATOM | 150 | CD | ARG | 1018 | 89.698 | 56.832 | 0.533 | 1.00 | 46.72 | lite |
| ATOM | 151 | NE | ARG | 1018 | 89.818 | 58.024 | -0.294 | 1.00 | 46.72 | lite |
| ATOM | 153 | CZ | ARG | 1018 | 89.671 | 59.281 | 0.181 | 1.00 | 46.72 | lite |
| ATOM | 154 | NH1 | ARG | 1018 | 89.392 | 59.546 | 1.499 | 1.00 | 46.72 | lite |
| ATOM | 157 | NH2 | ARG | 1018 | 89.839 | 60.296 | -0.721 | 1.00 | 46.72 | lite |
| ATOM | 160 | C | ARG | 1018 | 87.077 | 53.481 | -1.228 | 1.00 | 23.54 | lite |
| ATOM | 161 | O | ARG | 1018 | 87.692 | 52.485 | -1.661 | 1.00 | 46.72 | lite |
| ATOM | 162 | N | ALA | 1019 | 86.118 | 54.102 | -1.900 | 1.00 | 34.78 | lite |
| ATOM | 164 | CA | ALA | 1019 | 85.824 | 53.690 | -3.249 | 1.00 | 34.78 | lite |
| ATOM | 165 | CB | ALA | 1019 | 84.334 | 53.316 | -3.370 | 1.00 | 20.85 | lite |
| ATOM | 166 | C | ALA | 1019 | 86.157 | 54.874 | -4.123 | 1.00 | 34.78 | lite |
| ATOM | 167 | O | ALA | 1019 | 85.793 | 56.043 | -3.891 | 1.00 | 20.85 | lite |

| ATOM | 168 | N | THR | 1020 | 86.953 | 54.471 | -5.096 | 1.00 | 20.53 | lite |
|------|-----|-----|-----|------|--------|--------|--------|------|-------|------|
| ATOM | 170 | CA | THR | 1020 | 87.465 | 55.419 | -6.067 | 1.00 | 20.53 | lite |
| ATOM | 171 | CB | THR | 1020 | 88.841 | 55.672 | -5.557 | 1.00 | 17.75 | lite |
| ATOM | 172 | OG1 | THR | 1020 | 88.551 | 56.546 | -4.421 | 1.00 | 17.75 | lite |
| ATOM | 174 | CG2 | THR | 1020 | 89.865 | 56.110 | -6.625 | 1.00 | 17.75 | lite |
| ATOM | 175 | C | THR | 1020 | 87.383 | 54.957 | -7.512 | 1.00 | 20.53 | lite |
| ATOM | 176 | O | THR | 1020 | 88.105 | 54.114 | -8.024 | 1.00 | 17.75 | lite |
| ATOM | 177 | N | ILE | 1021 | 86.341 | 55.420 | -8.165 | 1.00 | 12.91 | lite |
| ATOM | 179 | CA | ILE | 1021 | 86.076 | 54.984 | -9.512 | 1.00 | 12.91 | lite |
| ATOM | 180 | CB | ILE | 1021 | 84.545 | 55.040 | -9.723 | 1.00 | 8.13 | lite |
| ATOM | 181 | CG2 | ILE | 1021 | 84.182 | 54.604 | -11.136 | 1.00 | 8.13 | lite |
| ATOM | 182 | CG1 | ILE | 1021 | 83.846 | 54.092 | -8.770 | 1.00 | 8.13 | lite |
| ATOM | 183 | CD1 | ILE | 1021 | 82.780 | 54.881 | -8.038 | 1.00 | 8.13 | lite |
| ATOM | 184 | C | ILE | 1021 | 86.829 | 55.947 | -10.384 | 1.00 | 12.91 | lite |
| ATOM | 185 | O | ILE | 1021 | 86.929 | 57.124 | -10.052 | 1.00 | 8.13 | lite |
| ATOM | 186 | N | SER | 1022 | 87.386 | 55.431 | -11.462 | 1.00 | 19.62 | lite |
| ATOM | 188 | CA | SER | 1022 | 88.096 | 56.216 | -12.499 | 1.00 | 19.62 | lite |
| ATOM | 189 | CB | SER | 1022 | 89.415 | 55.492 | -12.778 | 1.00 | 22.89 | lite |
| ATOM | 190 | OG | SER | 1022 | 89.988 | 55.907 | -14.005 | 1.00 | 22.89 | lite |
| ATOM | 192 | C | SER | 1022 | 87.360 | 56.502 | -13.857 | 1.00 | 19.62 | lite |
| ATOM | 193 | O | SER | 1022 | 86.405 | 55.829 | -14.239 | 1.00 | 22.89 | lite |
| ATOM | 194 | N | CYS | 1023 | 87.643 | 57.445 | -14.720 | 1.00 | 9.02 | lite |
| ATOM | 196 | CA | CYS | 1023 | 86.959 | 57.494 | -15.998 | 1.00 | 9.02 | lite |
| ATOM | 197 | C | CYS | 1023 | 87.988 | 58.122 | -16.892 | 1.00 | 9.02 | lite |
| ATOM | 198 | O | CYS | 1023 | 88.744 | 59.001 | -16.476 | 1.00 | 16.31 | lite |
| ATOM | 199 | CB | CYS | 1023 | 85.714 | 58.345 | -15.892 | 1.00 | 16.31 | lite |
| ATOM | 200 | SG | CYS | 1023 | 84.822 | 58.600 | -17.453 | 1.00 | 16.31 | lite |
| ATOM | 201 | N | LYS | 1024 | 88.099 | 57.667 | -18.115 | 1.00 | 18.14 | lite |
| ATOM | 203 | CA | LYS | 1024 | 89.135 | 58.178 | -18.971 | 1.00 | 18.14 | lite |
| ATOM | 204 | CB | LYS | 1024 | 90.211 | 57.160 | -19.098 | 1.00 | 34.38 | lite |
| ATOM | 205 | CG | LYS | 1024 | 91.442 | 57.874 | -19.565 | 1.00 | 34.38 | lite |
| ATOM | 206 | CD | LYS | 1024 | 92.220 | 57.052 | -20.585 | 1.00 | 34.38 | lite |
| ATOM | 207 | CE | LYS | 1024 | 93.733 | 57.445 | -20.603 | 1.00 | 34.38 | lite |
| ATOM | 208 | NZ | LYS | 1024 | 94.101 | 58.834 | -20.985 | 1.00 | 34.38 | lite |
| ATOM | 212 | C | LYS | 1024 | 88.592 | 58.483 | -20.345 | 1.00 | 18.14 | lite |
| ATOM | 213 | O | LYS | 1024 | 88.205 | 57.588 | -21.106 | 1.00 | 34.38 | lite |
| ATOM | 214 | N | ALA | 1025 | 88.515 | 59.758 | -20.639 | 1.00 | 2.00 | lite |
| ATOM | 216 | CA | ALA | 1025 | 88.076 | 60.223 | -21.925 | 1.00 | 2.00 | lite |
| ATOM | 217 | CB | ALA | 1025 | 87.796 | 61.697 | -21.722 | 1.00 | 14.09 | lite |
| ATOM | 218 | C | ALA | 1025 | 89.048 | 59.972 | -23.081 | 1.00 | 2.00 | lite |
| ATOM | 219 | O | ALA | 1025 | 90.229 | 60.196 | -22.964 | 1.00 | 14.09 | lite |
| ATOM | 220 | N | SER | 1026 | 88.758 | 59.525 | -24.278 | 1.00 | 16.81 | lite |
| ATOM | 222 | CA | SER | 1026 | 89.804 | 59.400 | -25.326 | 1.00 | 16.81 | lite |
| ATOM | 223 | CB | SER | 1026 | 89.265 | 58.608 | -26.496 | 1.00 | 19.76 | lite |
| ATOM | 224 | OG | SER | 1026 | 88.135 | 59.373 | -26.929 | 1.00 | 19.76 | lite |
| ATOM | 226 | C | SER | 1026 | 90.452 | 60.671 | -25.951 | 1.00 | 16.81 | lite |
| ATOM | 227 | O | SER | 1026 | 91.395 | 60.645 | -26.769 | 1.00 | 19.76 | lite |
| ATOM | 228 | N | GLN | 1027 | 89.823 | 61.829 | -25.745 | 1.00 | 8.73 | lite |
| ATOM | 230 | CA | GLN | 1027 | 90.282 | 63.105 | -26.260 | 1.00 | 8.73 | lite |
| ATOM | 231 | CB | GLN | 1027 | 89.412 | 63.594 | -27.391 | 1.00 | 30.56 | lite |
| ATOM | 232 | CG | GLN | 1027 | 89.016 | 62.479 | -28.408 | 1.00 | 30.56 | lite |
| ATOM | 233 | CD | GLN | 1027 | 88.916 | 62.930 | -29.873 | 1.00 | 30.56 | lite |
| ATOM | 234 | OE1 | GLN | 1027 | 87.846 | 62.945 | -30.515 | 1.00 | 30.56 | lite |
| ATOM | 235 | NE2 | GLN | 1027 | 90.008 | 63.330 | -30.512 | 1.00 | 30.56 | lite |
| ATOM | 238 | C | GLN | 1027 | 90.030 | 63.988 | -25.058 | 1.00 | 8.73 | lite |
| ATOM | 239 | O | GLN | 1027 | 88.976 | 63.837 | -24.454 | 1.00 | 30.56 | lite |
| ATOM | 240 | N | GLY | 1028 | 90.902 | 64.887 | -24.615 | 1.00 | 12.55 | lite |
| ATOM | 242 | CA | GLY | 1028 | 90.676 | 65.716 | -23.433 | 1.00 | 12.55 | lite |
| ATOM | 243 | C | GLY | 1028 | 89.359 | 66.473 | -23.426 | 1.00 | 12.55 | lite |
| ATOM | 244 | O | GLY | 1028 | 88.910 | 66.893 | -24.487 | 1.00 | 17.16 | lite |
| ATOM | 245 | N | VAL | 1029 | 88.709 | 66.679 | -22.269 | 1.00 | 11.65 | lite |
| ATOM | 247 | CA | VAL | 1029 | 87.395 | 67.311 | -22.248 | 1.00 | 11.65 | lite |
| ATOM | 248 | CB | VAL | 1029 | 86.332 | 66.408 | -21.535 | 1.00 | 14.42 | lite |
| ATOM | 249 | CG1 | VAL | 1029 | 86.098 | 65.111 | -22.296 | -1.00 | 14.42 | lite |
| ATOM | 250 | CG2 | VAL | 1029 | 86.811 | 66.111 | -20.123 | 1.00 | 14.42 | lite |
| ATOM | 251 | C | VAL | 1029 | 87.271 | 68.678 | -21.658 | 1.00 | 11.65 | lite |
| ATOM | 252 | O | VAL | 1029 | 86.156 | 69.131 | -21.407 | 1.00 | 14.42 | lite |

| ATOM | 253 | N   | ASP | 1030 | 88.398 | 69.364 | -21.494 | 1.00 | 6.61  | lite |
|------|-----|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 255 | CA  | ASP | 1030 | 88.470 | 70.762 | -20.990 | 1.00 | 6.61  | lite |
| ATOM | 256 | CB  | ASP | 1030 | 89.791 | 71.082 | -20.264 | 1.00 | 16.06 | lite |
| ATOM | 257 | CG  | ASP | 1030 | 90.286 | 70.078 | -19.226 | 1.00 | 16.06 | lite |
| ATOM | 258 | OD1 | ASP | 1030 | 89.577 | 69.122 | -18.906 | 1.00 | 16.06 | lite |
| ATOM | 259 | OD2 | ASP | 1030 | 91.410 | 70.207 | -18.755 | 1.00 | 16.06 | lite |
| ATOM | 260 | C   | ASP | 1030 | 88.318 | 71.925 | -21.980 | 1.00 | 6.61  | lite |
| ATOM | 261 | O   | ASP | 1030 | 88.585 | 71.835 | -23.176 | 1.00 | 16.06 | lite |
| ATOM | 262 | N   | PHE | 1031 | 87.825 | 73.044 | -21.491 | 1.00 | 6.32  | lite |
| ATOM | 264 | CA  | PHE | 1031 | 87.603 | 74.205 | -22.308 | 1.00 | 6.32  | lite |
| ATOM | 265 | CB  | PHE | 1031 | 86.520 | 73.910 | -23.309 | 1.00 | 18.73 | lite |
| ATOM | 266 | CG  | PHE | 1031 | 86.119 | 75.117 | -24.142 | 1.00 | 18.73 | lite |
| ATOM | 267 | CD1 | PHE | 1031 | 86.955 | 75.619 | -25.140 | 1.00 | 18.73 | lite |
| ATOM | 268 | CD2 | PHE | 1031 | 84.929 | 75.756 | -23.830 | 1.00 | 18.73 | lite |
| ATOM | 269 | CE1 | PHE | 1031 | 86.615 | 76.764 | -25.827 | 1.00 | 18.73 | lite |
| ATOM | 270 | CE2 | PHE | 1031 | 84.606 | 76.910 | -24.536 | 1.00 | 18.73 | lite |
| ATOM | 271 | CZ  | PHE | 1031 | 85.444 | 77.415 | -25.526 | 1.00 | 18.73 | lite |
| ATOM | 272 | C   | PHE | 1031 | 87.195 | 75.409 | -21.442 | 1.00 | 6.32  | lite |
| ATOM | 273 | O   | PHE | 1031 | 86.116 | 75.452 | -20.812 | 1.00 | 18.73 | lite |
| ATOM | 274 | N   | ASP | 1032 | 88.076 | 76.444 | -21.589 | 1.00 | 15.83 | lite |
| ATOM | 276 | CA  | ASP | 1032 | 88.141 | 77.701 | -20.826 | 1.00 | 15.83 | lite |
| ATOM | 277 | CB  | ASP | 1032 | 86.849 | 78.539 | -20.805 | 1.00 | 27.37 | lite |
| ATOM | 278 | CG  | ASP | 1032 | 86.878 | 79.598 | -21.940 | 1.00 | 27.37 | lite |
| ATOM | 279 | OD1 | ASP | 1032 | 87.970 | 80.069 | -22.334 | 1.00 | 27.37 | lite |
| ATOM | 280 | OD2 | ASP | 1032 | 85.812 | 79.976 | -22.459 | 1.00 | 27.37 | lite |
| ATOM | 281 | C   | ASP | 1032 | 88.464 | 77.326 | -19.429 | 1.00 | 15.83 | lite |
| ATOM | 282 | O   | ASP | 1032 | 89.455 | 76.641 | -19.238 | 1.00 | 27.37 | lite |
| ATOM | 283 | N   | GLY | 1033 | 87.733 | 77.653 | -18.399 | 1.00 | 37.08 | lite |
| ATOM | 285 | CA  | GLY | 1033 | 88.109 | 77.134 | -17.054 | 1.00 | 37.08 | lite |
| ATOM | 286 | C   | GLY | 1033 | 87.825 | 75.635 | -16.780 | 1.00 | 37.08 | lite |
| ATOM | 287 | O   | GLY | 1033 | 88.638 | 74.887 | -16.212 | 1.00 | 32.68 | lite |
| ATOM | 288 | N   | ALA | 1034 | 86.655 | 75.259 | -17.340 | 1.00 | 14.51 | lite |
| ATOM | 290 | CA  | ALA | 1034 | 85.921 | 74.021 | -17.162 | 1.00 | 14.51 | lite |
| ATOM | 291 | CB  | ALA | 1034 | 84.512 | 74.317 | -17.500 | 1.00 | 8.06  | lite |
| ATOM | 292 | C   | ALA | 1034 | 86.195 | 72.671 | -17.746 | 1.00 | 14.51 | lite |
| ATOM | 293 | O   | ALA | 1034 | 86.329 | 72.539 | -18.952 | 1.00 | 8.06  | lite |
| ATOM | 294 | N   | SER | 1035 | 86.284 | 71.649 | -16.903 | 1.00 | 9.72  | lite |
| ATOM | 296 | CA  | SER | 1035 | 86.292 | 70.261 | -17.411 | 1.00 | 9.72  | lite |
| ATOM | 297 | CB  | SER | 1035 | 86.763 | 69.162 | -16.494 | 1.00 | 24.38 | lite |
| ATOM | 298 | OG  | SER | 1035 | 88.169 | 69.029 | -16.373 | 1.00 | 24.38 | lite |
| ATOM | 300 | C   | SER | 1035 | 84.906 | 69.776 | -17.703 | 1.00 | 9.72  | lite |
| ATOM | 301 | O   | SER | 1035 | 84.116 | 69.584 | -16.799 | 1.00 | 24.38 | lite |
| ATOM | 302 | N   | PHE | 1036 | 84.527 | 69.506 | -18.933 | 1.00 | 14.21 | lite |
| ATOM | 304 | CA  | PHE | 1036 | 83.142 | 69.142 | -19.267 | 1.00 | 14.21 | lite |
| ATOM | 305 | CB  | PHE | 1036 | 82.948 | 69.452 | -20.730 | 1.00 | 6.15  | lite |
| ATOM | 306 | CG  | PHE | 1036 | 82.927 | 70.926 | -20.977 | 1.00 | 6.15  | lite |
| ATOM | 307 | CD1 | PHE | 1036 | 84.083 | 71.630 | -21.063 | 1.00 | 6.15  | lite |
| ATOM | 308 | CD2 | PHE | 1036 | 81.751 | 71.575 | -21.035 | 1.00 | 6.15  | lite |
| ATOM | 309 | CE1 | PHE | 1036 | 84.047 | 72.995 | -21.204 | 1.00 | 6.15  | lite |
| ATOM | 310 | CE2 | PHE | 1036 | 81.734 | 72.929 | -21.174 | 1.00 | 6.15  | lite |
| ATOM | 311 | CZ  | PHE | 1036 | 82.873 | 73.655 | -21.256 | 1.00 | 6.15  | lite |
| ATOM | 312 | C   | PHE | 1036 | 82.744 | 67.705 | -18.975 | 1.00 | 14.21 | lite |
| ATOM | 313 | O   | PHE | 1036 | 82.156 | 67.018 | -19.809 | 1.00 | 6.15  | lite |
| ATOM | 314 | N   | MET | 1037 | 83.135 | 67.231 | -17.797 | 1.00 | 8.73  | lite |
| ATOM | 316 | CA  | MET | 1037 | 82.874 | 65.896 | -17.312 | 1.00 | 8.73  | lite |
| ATOM | 317 | CB  | MET | 1037 | 84.189 | 65.281 | -16.853 | 1.00 | 6.04  | lite |
| ATOM | 318 | CG  | MET | 1037 | 84.092 | 63.818 | -16.514 | 1.00 | 6.04  | lite |
| ATOM | 319 | SD  | MET | 1037 | 83.688 | 62.724 | -17.887 | 1.00 | 6.04  | lite |
| ATOM | 320 | CE  | MET | 1037 | 84.916 | 63.148 | -19.046 | 1.00 | 6.04  | lite |
| ATOM | 321 | C   | MET | 1037 | 81.867 | 65.946 | -16.163 | 1.00 | 8.73  | lite |
| ATOM | 322 | O   | MET | 1037 | 81.987 | 66.762 | -15.271 | 1.00 | 6.04  | lite |
| ATOM | 323 | N   | ASN | 1038 | 80.831 | 65.109 | -16.188 | 1.00 | 5.06  | lite |
| ATOM | 325 | CA  | ASN | 1038 | 79.788 | 65.002 | -15.176 | 1.00 | 5.06  | lite |
| ATOM | 326 | CB  | ASN | 1038 | 78.433 | 65.395 | -15.676 | 1.00 | 12.61 | lite |
| ATOM | 327 | CG  | ASN | 1038 | 78.453 | 66.455 | -16.736 | 1.00 | 12.61 | lite |
| ATOM | 328 | OD1 | ASN | 1038 | 78.453 | 67.632 | -16.524 | 1.00 | 12.61 | lite |
| ATOM | 329 | ND2 | ASN | 1038 | 78.530 | 66.204 | -17.996 | 1.00 | 12.61 | lite |

| ATOM | 332 | C | ASN | 1038 | 79.648 | 63.542 | -14.745 | 1.00 | 5.06 | lite |
|------|-----|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 333 | O | ASN | 1038 | 80.079 | 62.648 | -15.489 | 1.00 | 12.61 | lite |
| ATOM | 334 | N | TRP | 1039 | 79.014 | 63.272 | -13.589 | 1.00 | 9.72 | lite |
| ATOM | 336 | CA | TRP | 1039 | 78.851 | 61.922 | -13.056 | 1.00 | 9.72 | lite |
| ATOM | 337 | CB | TRP | 1039 | 79.773 | 61.703 | -11.880 | 1.00 | 2.00 | lite |
| ATOM | 338 | CG | TRP | 1039 | 81.267 | 61.626 | -12.161 | 1.00 | 2.00 | lite |
| ATOM | 339 | CD2 | TRP | 1039 | 81.974 | 60.473 | -12.308 | 1.00 | 2.00 | lite |
| ATOM | 340 | CE2 | TRP | 1039 | 83.263 | 60.950 | -12.446 | 1.00 | 2.00 | lite |
| ATOM | 341 | CE3 | TRP | 1039 | 81.710 | 59.146 | -12.339 | 1.00 | 2.00 | lite |
| ATOM | 342 | CD1 | TRP | 1039 | 82.062 | 62.737 | -12.220 | 1.00 | 2.00 | lite |
| ATOM | 343 | NE1 | TRP | 1039 | 83.270 | 62.287 | -12.392 | 1.00 | 2.00 | lite |
| ATOM | 345 | CZ2 | TRP | 1039 | 84.325 | 60.111 | -12.613 | 1.00 | 2.00 | lite |
| ATOM | 346 | CZ3 | TRP | 1039 | 82.782 | 58.311 | -12.508 | 1.00 | 2.00 | lite |
| ATOM | 347 | CH2 | TRP | 1039 | 84.068 | 58.772 | -12.642 | 1.00 | 2.00 | lite |
| ATOM | 348 | C | TRP | 1039 | 77.424 | 61.629 | -12.590 | 1.00 | 9.72 | lite |
| ATOM | 349 | O | TRP | 1039 | 76.821 | 62.533 | -12.005 | 1.00 | 2.00 | lite |
| ATOM | 350 | N | TYR | 1040 | 76.878 | 60.412 | -12.840 | 1.00 | 8.33 | lite |
| ATOM | 352 | CA | TYR | 1040 | 75.492 | 59.988 | -12.579 | 1.00 | 8.33 | lite |
| ATOM | 353 | CB | TYR | 1040 | 74.690 | 59.599 | -13.874 | 1.00 | 12.23 | lite |
| ATOM | 354 | CG | TYR | 1040 | 74.380 | 60.854 | -14.699 | 1.00 | 12.23 | lite |
| ATOM | 355 | CD1 | TYR | 1040 | 75.310 | 61.400 | -15.544 | 1.00 | 12.23 | lite |
| ATOM | 356 | CE1 | TYR | 1040 | 75.062 | 62.623 | -16.145 | 1.00 | 12.23 | lite |
| ATOM | 357 | CD2 | TYR | 1040 | 73.209 | 61.563 | -14.502 | 1.00 | 12.23 | lite |
| ATOM | 358 | CE2 | TYR | 1040 | 72.960 | 62.784 | -15.104 | 1.00 | 12.23 | lite |
| ATOM | 359 | CZ | TYR | 1040 | 73.896 | 63.312 | -15.926 | 1.00 | 12.23 | lite |
| ATOM | 360 | OH | TYR | 1040 | 73.673 | 64.511 | -16.537 | 1.00 | 12.23 | lite |
| ATOM | 362 | C | TYR | 1040 | 75.537 | 58.766 | -11.738 | 1.00 | 8.33 | lite |
| ATOM | 363 | O | TYR | 1040 | 76.358 | 57.882 | -11.990 | 1.00 | 12.23 | lite |
| ATOM | 364 | N | GLN | 1041 | 74.692 | 58.698 | -10.736 | 1.00 | 12.84 | lite |
| ATOM | 366 | CA | GLN | 1041 | 74.614 | 57.518 | -9.898 | 1.00 | 12.84 | lite |
| ATOM | 367 | CB | GLN | 1041 | 74.482 | 57.902 | -8.451 | 1.00 | 12.50 | lite |
| ATOM | 368 | CG | GLN | 1041 | 74.380 | 56.760 | -7.472 | 1.00 | 12.50 | lite |
| ATOM | 369 | CD | GLN | 1041 | 73.892 | 57.206 | -6.131 | 1.00 | 12.50 | lite |
| ATOM | 370 | OE1 | GLN | 1041 | 72.872 | 57.848 | -5.931 | 1.00 | 12.50 | lite |
| ATOM | 371 | NE2 | GLN | 1041 | 74.584 | 56.860 | -5.106 | 1.00 | 12.50 | lite |
| ATOM | 374 | C | GLN | 1041 | 73.346 | 56.818 | -10.306 | 1.00 | 12.84 | lite |
| ATOM | 375 | O | GLN | 1041 | 72.417 | 57.593 | -10.518 | 1.00 | 12.50 | lite |
| ATOM | 376 | N | GLN | 1042 | 73.187 | 55.483 | -10.413 | 1.00 | 11.78 | lite |
| ATOM | 378 | CA | GLN | 1042 | 71.924 | 54.802 | -10.697 | 1.00 | 11.78 | lite |
| ATOM | 379 | CB | GLN | 1042 | 71.782 | 54.389 | -12.168 | 1.00 | 15.01 | lite |
| ATOM | 380 | CG | GLN | 1042 | 70.510 | 53.578 | -12.524 | 1.00 | 15.01 | lite |
| ATOM | 381 | CD | GLN | 1042 | 70.204 | 53.328 | -13.971 | 1.00 | 15.01 | lite |
| ATOM | 382 | OE1 | GLN | 1042 | 71.009 | 52.795 | -14.722 | 1.00 | 15.01 | lite |
| ATOM | 383 | NE2 | GLN | 1042 | 69.047 | 53.675 | -14.465 | 1.00 | 15.01 | lite |
| ATOM | 386 | C | GLN | 1042 | 71.705 | 53.520 | -9.906 | 1.00 | 11.78 | lite |
| ATOM | 387 | O | GLN | 1042 | 72.488 | 52.565 | -9.858 | 1.00 | 15.01 | lite |
| ATOM | 388 | N | LYS | 1043 | 70.571 | 53.501 | -9.249 | 1.00 | 13.37 | lite |
| ATOM | 390 | CA | LYS | 1043 | 70.084 | 52.336 | -8.526 | 1.00 | 13.37 | lite |
| ATOM | 391 | CB | LYS | 1043 | 69.477 | 52.810 | -7.235 | 1.00 | 13.43 | lite |
| ATOM | 392 | CG | LYS | 1043 | 70.567 | 53.292 | -6.336 | 1.00 | 13.43 | lite |
| ATOM | 393 | CD | LYS | 1043 | 69.994 | 54.166 | -5.274 | 1.00 | 13.43 | lite |
| ATOM | 394 | CE | LYS | 1043 | 71.001 | 54.292 | -4.121 | 1.00 | 13.43 | lite |
| ATOM | 395 | NZ | LYS | 1043 | 71.220 | 53.053 | -3.366 | 1.00 | 13.43 | lite |
| ATOM | 399 | C | LYS | 1043 | 69.024 | 51.609 | -9.358 | 1.00 | 13.37 | lite |
| ATOM | 400 | O | LYS | 1043 | 68.210 | 52.226 | -10.074 | 1.00 | 13.43 | lite |
| ATOM | 401 | N | PRO | 1044 | 68.931 | 50.293 | -9.239 | 1.00 | 5.25 | lite |
| ATOM | 402 | CD | PRO | 1044 | 69.637 | 49.487 | -8.235 | 1.00 | 23.73 | lite |
| ATOM | 403 | CA | PRO | 1044 | 67.969 | 49.483 | -9.986 | 1.00 | 5.25 | lite |
| ATOM | 404 | CB | PRO | 1044 | 68.135 | 48.096 | -9.405 | 1.00 | 23.73 | lite |
| ATOM | 405 | CG | PRO | 1044 | 68.597 | 48.398 | -7.987 | 1.00 | 23.73 | lite |
| ATOM | 406 | C | PRO | 1044 | 66.545 | 49.965 | -9.946 | 1.00 | 5.25 | lite |
| ATOM | 407 | O | PRO | 1044 | 66.069 | 50.349 | -8.878 | 1.00 | 23.73 | lite |
| ATOM | 408 | N | GLY | 1045 | 65.940 | 50.046 | -11.136 | 1.00 | 18.28 | lite |
| ATOM | 410 | CA | GLY | 1045 | 64.571 | 50.523 | -11.322 | 1.00 | 18.28 | lite |
| ATOM | 411 | C | GLY | 1045 | 64.385 | 52.054 | -11.192 | 1.00 | 18.28 | lite |
| ATOM | 412 | O | GLY | 1045 | 63.334 | 52.555 | -10.753 | 1.00 | 34.41 | lite |
| ATOM | 413 | N | GLN | 1046 | 65.393 | 52.872 | -11.543 | 1.00 | 12.79 | lite |

| ATOM | 415 | CA | GLN | 1046 | 65.282 | 54.320 | -11.345 | 1.00 | 12.79 | lite |
|------|-----|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 416 | CB | GLN | 1046 | 65.675 | 54.725 | -9.981 | 1.00 | 24.80 | lite |
| ATOM | 417 | CG | GLN | 1046 | 64.677 | 54.838 | -8.894 | 1.00 | 24.80 | lite |
| ATOM | 418 | CD | GLN | 1046 | 65.570 | 55.253 | -7.736 | 1.00 | 24.80 | lite |
| ATOM | 419 | OE1 | GLN | 1046 | 65.778 | 56.459 | -7.520 | 1.00 | 24.80 | lite |
| ATOM | 420 | NE2 | GLN | 1046 | 66.236 | 54.360 | -6.982 | 1.00 | 24.80 | lite |
| ATOM | 423 | C | GLN | 1046 | 66.261 | 54.994 | -12.248 | 1.00 | 12.79 | lite |
| ATOM | 424 | O | GLN | 1046 | 67.288 | 54.369 | -12.531 | 1.00 | 24.80 | lite |
| ATOM | 425 | N | PRO | 1047 | 66.006 | 56.227 | -12.672 | 1.00 | 2.00 | lite |
| ATOM | 426 | CD | PRO | 1047 | 64.815 | 56.983 | -12.335 | 1.00 | 10.21 | lite |
| ATOM | 427 | CA | PRO | 1047 | 66.777 | 56.954 | -13.689 | 1.00 | 2.00 | lite |
| ATOM | 428 | CB | PRO | 1047 | 65.814 | 58.063 | -14.102 | 1.00 | 10.21 | lite |
| ATOM | 429 | CG | PRO | 1047 | 65.114 | 58.394 | -12.834 | 1.00 | 10.21 | lite |
| ATOM | 430 | C | PRO | 1047 | 68.159 | 57.474 | -13.276 | 1.00 | 2.00 | lite |
| ATOM | 431 | O | PRO | 1047 | 68.353 | 57.657 | -12.091 | 1.00 | 10.21 | lite |
| ATOM | 432 | N | PRO | 1048 | 69.168 | 57.737 | -14.071 | 1.00 | 2.00 | lite |
| ATOM | 433 | CD | PRO | 1048 | 69.236 | 57.318 | -15.448 | 1.00 | 4.25 | lite |
| ATOM | 434 | CA | PRO | 1048 | 70.373 | 58.345 | -13.598 | 1.00 | 2.00 | lite |
| ATOM | 435 | CB | PRO | 1048 | 71.053 | 58.593 | -14.872 | 1.00 | 4.25 | lite |
| ATOM | 436 | CG | PRO | 1048 | 70.682 | 57.393 | -15.713 | 1.00 | 4.25 | lite |
| ATOM | 437 | C | PRO | 1048 | 70.171 | 59.566 | -12.698 | 1.00 | 2.00 | lite |
| ATOM | 438 | O | PRO | 1048 | 69.455 | 60.505 | -12.992 | 1.00 | 4.25 | lite |
| ATOM | 439 | N | LYS | 1049 | 70.689 | 59.559 | -11.490 | 1.00 | 10.94 | lite |
| ATOM | 441 | CA | LYS | 1049 | 70.632 | 60.726 | -10.642 | 1.00 | 10.94 | lite |
| ATOM | 442 | CB | LYS | 1049 | 70.575 | 60.349 | -9.190 | 1.00 | 20.93 | lite |
| ATOM | 443 | CG | LYS | 1049 | 70.196 | 61.544 | -8.381 | 1.00 | 20.93 | lite |
| ATOM | 444 | CD | LYS | 1049 | 70.281 | 61.311 | -6.897 | 1.00 | 20.93 | lite |
| ATOM | 445 | CE | LYS | 1049 | 69.941 | 62.693 | -6.215 | 1.00 | 20.93 | lite |
| ATOM | 446 | NZ | LYS | 1049 | 70.114 | 62.849 | -4.737 | 1.00 | 20.93 | lite |
| ATOM | 450 | C | LYS | 1049 | 71.919 | 61.492 | -10.880 | 1.00 | 10.94 | lite |
| ATOM | 451 | O | LYS | 1049 | 73.003 | 60.896 | -10.785 | 1.00 | 20.93 | lite |
| ATOM | 452 | N | LEU | 1050 | 71.851 | 62.779 | -11.268 | 1.00 | 15.81 | lite |
| ATOM | 454 | CA | LEU | 1050 | 73.057 | 63.610 | -11.319 | 1.00 | 15.81 | lite |
| ATOM | 455 | CB | LEU | 1050 | 72.754 | 64.926 | -11.911 | 1.00 | 12.35 | lite |
| ATOM | 456 | CG | LEU | 1050 | 73.884 | 65.889 | -11.909 | 1.00 | 12.35 | lite |
| ATOM | 457 | CD1 | LEU | 1050 | 75.092 | 65.428 | -12.674 | 1.00 | 12.35 | lite |
| ATOM | 458 | CD2 | LEU | 1050 | 73.344 | 67.108 | -12.548 | 1.00 | 12.35 | lite |
| ATOM | 459 | C | LEU | 1050 | 73.689 | 63.858 | -9.941 | 1.00 | 15.81 | lite |
| ATOM | 460 | O | LEU | 1050 | 73.056 | 64.218 | -8.942 | 1.00 | 12.35 | lite |
| ATOM | 461 | N | LEU | 1051 | 75.014 | 63.728 | -9.927 | 1.00 | 19.37 | lite |
| ATOM | 463 | CA | LEU | 1051 | 75.795 | 63.781 | -8.689 | 1.00 | 19.37 | lite |
| ATOM | 464 | CB | LEU | 1051 | 76.514 | 62.499 | -8.622 | 1.00 | 21.74 | lite |
| ATOM | 465 | CG | LEU | 1051 | 76.561 | 61.495 | -7.492 | 1.00 | 21.74 | lite |
| ATOM | 466 | CD1 | LEU | 1051 | 75.173 | 61.157 | -6.940 | 1.00 | 21.74 | lite |
| ATOM | 467 | CD2 | LEU | 1051 | 77.332 | 60.268 | -8.071 | 1.00 | 21.74 | lite |
| ATOM | 468 | C | LEU | 1051 | 76.784 | 64.925 | -8.629 | 1.00 | 19.37 | lite |
| ATOM | 469 | O | LEU | 1051 | 76.856 | 65.705 | -7.681 | 1.00 | 21.74 | lite |
| ATOM | 470 | N | ILE | 1052 | 77.568 | 64.982 | -9.694 | 1.00 | 14.35 | lite |
| ATOM | 472 | CA | ILE | 1052 | 78.684 | 65.916 | -9.835 | 1.00 | 14.35 | lite |
| ATOM | 473 | CB | ILE | 1052 | 80.034 | 65.232 | -9.663 | 1.00 | 10.91 | lite |
| ATOM | 474 | CG2 | ILE | 1052 | 81.114 | 66.174 | -10.091 | 1.00 | 10.91 | lite |
| ATOM | 475 | CG1 | ILE | 1052 | 80.290 | 64.878 | -8.225 | 1.00 | 10.91 | lite |
| ATOM | 476 | CD1 | ILE | 1052 | 81.498 | 63.954 | -8.013 | 1.00 | 10.91 | lite |
| ATOM | 477 | C | ILE | 1052 | 78.687 | 66.484 | -11.227 | 1.00 | 14.35 | lite |
| ATOM | 478 | O | ILE | 1052 | 78.740 | 65.693 | -12.162 | 1.00 | 10.91 | lite |
| ATOM | 479 | N | PHE | 1053 | 78.629 | 67.768 | -11.472 | 1.00 | 8.00 | lite |
| ATOM | 481 | CA | PHE | 1053 | 78.812 | 68.244 | -12.833 | 1.00 | 8.00 | lite |
| ATOM | 482 | CB | PHE | 1053 | 77.681 | 69.159 | -13.231 | 1.00 | 11.69 | lite |
| ATOM | 483 | CG | PHE | 1053 | 77.506 | 70.370 | -12.352 | 1.00 | 11.69 | lite |
| ATOM | 484 | CD1 | PHE | 1053 | 76.613 | 70.312 | -11.307 | 1.00 | 11.69 | lite |
| ATOM | 485 | CD2 | PHE | 1053 | 78.136 | 71.527 | -12.673 | 1.00 | 11.69 | lite |
| ATOM | 486 | CE1 | PHE | 1053 | 76.391 | 71.443 | -10.587 | 1.00 | 11.69 | lite |
| ATOM | 487 | CE2 | PHE | 1053 | 77.904 | 72.647 | -11.952 | 1.00 | 11.69 | lite |
| ATOM | 488 | CZ | PHE | 1053 | 77.039 | 72.596 | -10.910 | 1.00 | 11.69 | lite |
| ATOM | 489 | C | PHE | 1053 | 80.119 | 68.992 | -12.950 | 1.00 | 8.00 | lite |
| ATOM | 490 | O | PHE | 1053 | 80.666 | 69.361 | -11.913 | 1.00 | 11.69 | lite |
| ATOM | 491 | N | ALA | 1054 | 80.657 | 69.267 | -14.130 | 1.00 | 2.00 | lite |

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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATOM | 493 | CA | ALA | 1054 | 81.843 | 70.091 | -14.322 | 1.00 | 2.00 | lite |
| ATOM | 494 | CB | ALA | 1054 | 81.554 | 71.512 | -13.954 | 1.00 | 7.22 | lite |
| ATOM | 495 | C | ALA | 1054 | 83.071 | 69.691 | -13.559 | 1.00 | 2.00 | lite |
| ATOM | 496 | O | ALA | 1054 | 83.869 | 70.510 | -13.089 | 1.00 | 7.22 | lite |
| ATOM | 497 | N | ALA | 1055 | 83.174 | 68.361 | -13.421 | 1.00 | 7.93 | lite |
| ATOM | 499 | CA | ALA | 1055 | 84.214 | 67.622 | -12.720 | 1.00 | 7.93 | lite |
| ATOM | 500 | CB | ALA | 1055 | 85.570 | 68.089 | -13.154 | 1.00 | 8.57 | lite |
| ATOM | 501 | C | ALA | 1055 | 84.206 | 67.655 | -11.208 | 1.00 | 7.93 | lite |
| ATOM | 502 | O | ALA | 1055 | 84.329 | 66.618 | -10.585 | 1.00 | 8.57 | lite |
| ATOM | 503 | N | SER | 1056 | 83.990 | 68.731 | -10.489 | 1.00 | 9.33 | lite |
| ATOM | 505 | CA | SER | 1056 | 84.119 | 68.714 | -9.020 | 1.00 | 9.33 | lite |
| ATOM | 506 | CB | SER | 1056 | 85.309 | 69.552 | -8.594 | 1.00 | 22.71 | lite |
| ATOM | 507 | OG | SER | 1056 | 86.473 | 69.138 | -9.306 | 1.00 | 22.71 | lite |
| ATOM | 509 | C | SER | 1056 | 82.943 | 69.180 | -8.175 | 1.00 | 9.33 | lite |
| ATOM | 510 | O | SER | 1056 | 82.877 | 69.004 | -6.939 | 1.00 | 22.71 | lite |
| ATOM | 511 | N | THR | 1057 | 81.959 | 69.743 | -8.878 | 1.00 | 9.89 | lite |
| ATOM | 513 | CA | THR | 1057 | 80.852 | 70.311 | -8.141 | 1.00 | 9.89 | lite |
| ATOM | 514 | CB | THR | 1057 | 80.433 | 71.663 | -8.745 | 1.00 | 26.25 | lite |
| ATOM | 515 | OG1 | THR | 1057 | 79.600 | 71.333 | -9.835 | 1.00 | 26.25 | lite |
| ATOM | 517 | CG2 | THR | 1057 | 81.591 | 72.529 | -9.271 | 1.00 | 26.25 | lite |
| ATOM | 518 | C | THR | 1057 | 79.622 | 69.409 | -8.023 | 1.00 | 9.89 | lite |
| ATOM | 519 | O | THR | 1057 | 79.111 | 68.741 | -8.923 | 1.00 | 26.25 | lite |
| ATOM | 520 | N | LEU | 1058 | 79.292 | 69.318 | -6.756 | 1.00 | 11.68 | lite |
| ATOM | 522 | CA | LEU | 1058 | 78.226 | 68.489 | -6.269 | 1.00 | 11.68 | lite |
| ATOM | 523 | CB | LEU | 1058 | 78.406 | 68.130 | -4.776 | 1.00 | 19.95 | lite |
| ATOM | 524 | CG | LEU | 1058 | 79.643 | 67.406 | -4.259 | 1.00 | 19.95 | lite |
| ATOM | 525 | CD1 | LEU | 1058 | 79.611 | 67.309 | -2.775 | 1.00 | 19.95 | lite |
| ATOM | 526 | CD2 | LEU | 1058 | 79.685 | 66.027 | -4.819 | 1.00 | 19.95 | lite |
| ATOM | 527 | C | LEU | 1058 | 76.933 | 69.239 | -6.425 | 1.00 | 11.68 | lite |
| ATOM | 528 | O | LEU | 1058 | 76.667 | 70.379 | -6.055 | 1.00 | 19.95 | lite |
| ATOM | 529 | N | GLU | 1059 | 76.079 | 68.486 | -7.030 | 1.00 | 15.65 | lite |
| ATOM | 531 | CA | GLU | 1059 | 74.739 | 68.942 | -7.182 | 1.00 | 15.65 | lite |
| ATOM | 532 | CB | GLU | 1059 | 74.069 | 67.941 | -8.116 | 1.00 | 32.64 | lite |
| ATOM | 533 | CG | GLU | 1059 | 72.535 | 67.856 | -8.136 | 1.00 | 32.64 | lite |
| ATOM | 534 | CD | GLU | 1059 | 71.853 | 69.089 | -8.701 | 1.00 | 32.64 | lite |
| ATOM | 535 | OE1 | GLU | 1059 | 72.519 | 70.128 | -8.861 | 1.00 | 32.64 | lite |
| ATOM | 536 | OE2 | GLU | 1059 | 70.640 | 68.976 | -8.973 | 1.00 | 32.64 | lite |
| ATOM | 537 | C | GLU | 1059 | 74.160 | 68.970 | -5.767 | 1.00 | 15.65 | lite |
| ATOM | 538 | O | GLU | 1059 | 74.369 | 68.066 | -4.938 | 1.00 | 32.64 | lite |
| ATOM | 539 | N | SER | 1060 | 73.485 | 70.057 | -5.442 | 1.00 | 18.97 | lite |
| ATOM | 541 | CA | SER | 1060 | 72.811 | 70.206 | -4.144 | 1.00 | 18.97 | lite |
| ATOM | 542 | CB | SER | 1060 | 71.917 | 71.446 | -4.213 | 1.00 | 46.23 | lite |
| ATOM | 543 | OG | SER | 1060 | 71.496 | 71.811 | -5.552 | 1.00 | 46.23 | lite |
| ATOM | 545 | C | SER | 1060 | 71.989 | 69.034 | -3.611 | 1.00 | 18.97 | lite |
| ATOM | 546 | O | SER | 1060 | 71.442 | 68.220 | -4.361 | 1.00 | 46.23 | lite |
| ATOM | 547 | N | GLY | 1061 | 71.868 | 68.798 | -2.316 | 1.00 | 27.06 | lite |
| ATOM | 549 | CA | GLY | 1061 | 71.192 | 67.561 | -1.912 | 1.00 | 27.06 | lite |
| ATOM | 550 | C | GLY | 1061 | 72.151 | 66.366 | -1.963 | 1.00 | 27.06 | lite |
| ATOM | 551 | O | GLY | 1061 | 71.750 | 65.289 | -1.532 | 1.00 | 33.66 | lite |
| ATOM | 552 | N | ILE | 1062 | 73.375 | 66.467 | -2.521 | 1.00 | 12.97 | lite |
| ATOM | 554 | CA | ILE | 1062 | 74.359 | 65.403 | -2.441 | 1.00 | 12.97 | lite |
| ATOM | 555 | CB | ILE | 1062 | 75.014 | 65.171 | -3.848 | 1.00 | 13.22 | lite |
| ATOM | 556 | CG2 | ILE | 1062 | 76.354 | 64.427 | -3.744 | 1.00 | 13.22 | lite |
| ATOM | 557 | CG1 | ILE | 1062 | 74.109 | 64.289 | -4.694 | 1.00 | 13.22 | lite |
| ATOM | 558 | CD1 | ILE | 1062 | 72.799 | 64.885 | -5.201 | 1.00 | 13.22 | lite |
| ATOM | 559 | C | ILE | 1062 | 75.447 | 65.663 | -1.378 | 1.00 | 12.97 | lite |
| ATOM | 560 | O | ILE | 1062 | 76.381 | 66.471 | -1.456 | 1.00 | 13.22 | lite |
| ATOM | 561 | N | PRO | 1063 | 75.331 | 64.981 | -0.279 | 1.00 | 19.81 | lite |
| ATOM | 562 | CD | PRO | 1063 | 74.116 | 64.370 | 0.187 | 1.00 | 29.90 | lite |
| ATOM | 563 | CA | PRO | 1063 | 76.428 | 64.523 | 0.531 | 1.00 | 19.81 | lite |
| ATOM | 564 | CB | PRO | 1063 | 76.059 | 63.077 | 0.798 | 1.00 | 29.90 | lite |
| ATOM | 565 | CG | PRO | 1063 | 74.609 | 63.292 | 1.166 | 1.00 | 29.90 | lite |
| ATOM | 566 | C | PRO | 1063 | 77.890 | 64.640 | 0.207 | 1.00 | 19.81 | lite |
| ATOM | 567 | O | PRO | 1063 | 78.478 | 63.873 | -0.554 | 1.00 | 29.90 | lite |
| ATOM | 568 | N | ALA | 1064 | 78.446 | 65.515 | 1.036 | 1.00 | 23.29 | lite |
| ATOM | 570 | CA | ALA | 1064 | 79.883 | 65.850 | 1.126 | 1.00 | 23.29 | lite |
| ATOM | 571 | CB | ALA | 1064 | 80.181 | 66.473 | 2.488 | 1.00 | 25.15 | lite |

| ATOM | 572 | C | ALA | 1064 | 80.929 | 64.756 | 0.944 | 1.00 | 23.29 | lite |
|------|-----|------|------|------|--------|--------|--------|------|-------|------|
| ATOM | 573 | O | ALA | 1064 | 82.122 | 65.011 | 0.685 | 1.00 | 25.15 | lite |
| ATOM | 574 | N | ARG | 1065 | 80.420 | 63.525 | 1.161 | 1.00 | 8.63 | lite |
| ATOM | 576 | CA | ARG | 1065 | 81.335 | 62.424 | 1.037 | 1.00 | 8.63 | lite |
| ATOM | 577 | CB | ARG | 1065 | 80.854 | 61.329 | 1.966 | 1.00 | 15.80 | lite |
| ATOM | 578 | CG | ARG | 1065 | 79.781 | 60.450 | 1.388 | 1.00 | 15.80 | lite |
| ATOM | 579 | CD | ARG | 1065 | 79.760 | 59.079 | 2.008 | 1.00 | 15.80 | lite |
| ATOM | 580 | NE | ARG | 1065 | 78.639 | 58.351 | 1.484 | 1.00 | 15.80 | lite |
| ATOM | 582 | CZ | ARG | 1065 | 77.413 | 58.725 | 1.813 | 1.00 | 15.80 | lite |
| ATOM | 583 | NH1 | ARG | 1065 | 77.207 | 59.755 | 2.623 | 1.00 | 15.80 | lite |
| ATOM | 586 | NH2 | ARG | 1065 | 76.360 | 58.074 | 1.310 | 1.00 | 15.80 | lite |
| ATOM | 589 | C | ARG | 1065 | 81.562 | 61.886 | -0.354 | 1.00 | 15.80 | lite |
| ATOM | 590 | O | ARG | 1065 | 82.101 | 60.786 | -0.535 | 1.00 | 8.63 | lite |
| ATOM | 591 | N | PHE | 1066 | 80.994 | 62.636 | -1.305 | 1.00 | 8.63 | lite |
| ATOM | 593 | CA | PHE | 1066 | 81.270 | 62.470 | -2.724 | 1.00 | 8.63 | lite |
| ATOM | 594 | CB | PHE | 1066 | 80.004 | 62.486 | -3.501 | 1.00 | 11.41 | lite |
| ATOM | 595 | CG | PHE | 1066 | 79.313 | 61.143 | -3.379 | 1.00 | 11.41 | lite |
| ATOM | 596 | CD1 | PHE | 1066 | 78.109 | 61.071 | -2.715 | 1.00 | 11.41 | lite |
| ATOM | 597 | CD2 | PHE | 1066 | 79.840 | 60.033 | -3.986 | 1.00 | 11.41 | lite |
| ATOM | 598 | CE1 | PHE | 1066 | 77.448 | 59.860 | -2.636 | 1.00 | 11.41 | lite |
| ATOM | 599 | CE2 | PHE | 1066 | 79.167 | 58.857 | -3.913 | 1.00 | 11.41 | lite |
| ATOM | 600 | CZ | PHE | 1066 | 77.985 | 58.752 | -3.245 | 1.00 | 8.63 | lite |
| ATOM | 601 | C | PHE | 1066 | 82.181 | 63.550 | -3.282 | 1.00 | 11.41 | lite |
| ATOM | 602 | O | PHE | 1066 | 81.954 | 64.766 | -3.143 | 1.00 | 21.89 | lite |
| ATOM | 603 | N | SER | 1067 | 83.286 | 63.147 | -3.873 | 1.00 | 21.89 | lite |
| ATOM | 605 | CA | SER | 1067 | 84.134 | 64.165 | -4.469 | 1.00 | 31.25 | lite |
| ATOM | 606 | CB | SER | 1067 | 85.389 | 64.359 | -3.624 | 1.00 | 31.25 | lite |
| ATOM | 607 | OG | SER | 1067 | 86.038 | 63.120 | -3.393 | 1.00 | 21.89 | lite |
| ATOM | 609 | C | SER | 1067 | 84.547 | 63.872 | -5.919 | 1.00 | 31.25 | lite |
| ATOM | 610 | O | SER | 1067 | 84.777 | 62.700 | -6.274 | 1.00 | 13.13 | lite |
| ATOM | 611 | N | GLY | 1068 | 84.617 | 64.872 | -6.797 | 1.00 | 13.13 | lite |
| ATOM | 613 | CA | GLY | 1068 | 85.013 | 64.586 | -8.142 | 1.00 | 13.13 | lite |
| ATOM | 614 | C | GLY | 1068 | 86.310 | 65.290 | -8.458 | 1.00 | 30.50 | lite |
| ATOM | 615 | O | GLY | 1068 | 86.431 | 66.456 | -8.096 | 1.00 | 17.47 | lite |
| ATOM | 616 | N | ARG | 1069 | 87.323 | 64.668 | -9.072 | 1.00 | 17.47 | lite |
| ATOM | 618 | CA | ARG | 1069 | 88.551 | 65.360 | -9.428 | 1.00 | 54.18 | lite |
| ATOM | 619 | CB | ARG | 1069 | 89.733 | 64.940 | -8.549 | 1.00 | 54.18 | lite |
| ATOM | 620 | CG | ARG | 1069 | 89.661 | 64.748 | -7.000 | 1.00 | 54.18 | lite |
| ATOM | 621 | CD | ARG | 1069 | 89.251 | 65.949 | -6.051 | 1.00 | 54.18 | lite |
| ATOM | 622 | NE | ARG | 1069 | 90.196 | 67.089 | -6.057 | 1.00 | 54.18 | lite |
| ATOM | 624 | CZ | ARG | 1069 | 89.971 | 68.274 | -5.416 | 1.00 | 54.18 | lite |
| ATOM | 625 | NH1 | ARG | 1069 | 88.832 | 68.494 | -4.685 | 1.00 | 54.18 | lite |
| ATOM | 628 | NH2 | ARG | 1069 | 90.869 | 69.298 | -5.609 | 1.00 | 54.18 | lite |
| ATOM | 631 | C | ARG | 1069 | 88.916 | 64.971 | -10.856 | 1.00 | 17.47 | lite |
| ATOM | 632 | O | ARG | 1069 | 88.383 | 64.033 | -11.465 | 1.00 | 54.18 | lite |
| ATOM | 633 | N | GLY | 1070 | 89.853 | 65.710 | -11.431 | 1.00 | 15.33 | lite |
| ATOM | 635 | CA | GLY | 1070 | 90.431 | 65.381 | -12.726 | 1.00 | 15.33 | lite |
| ATOM | 636 | C | GLY | 1070 | 90.594 | 66.564 | -13.676 | 1.00 | 15.33 | lite |
| ATOM | 637 | O | GLY | 1070 | 90.131 | 67.692 | -13.513 | 1.00 | 11.99 | lite |
| ATOM | 638 | N | SER | 1071 | 91.278 | 66.249 | -14.755 | 1.00 | 25.67 | lite |
| ATOM | 640 | CA | SER | 1071 | 91.495 | 67.196 | -15.871 | 1.00 | 25.67 | lite |
| ATOM | 641 | CB | SER | 1071 | 92.587 | 68.223 | -15.728 | 1.00 | 31.64 | lite |
| ATOM | 642 | OG | SER | 1071 | 92.000 | 69.232 | -14.927 | 1.00 | 31.64 | lite |
| ATOM | 644 | C | SER | 1071 | 91.908 | 66.529 | -17.134 | 1.00 | 25.67 | lite |
| ATOM | 645 | O | SER | 1071 | 92.424 | 65.403 | -17.115 | 1.00 | 31.64 | lite |
| ATOM | 646 | N | GLY | 1072 | 91.654 | 67.250 | -18.228 | 1.00 | 7.52 | lite |
| ATOM | 648 | CA | GLY | 1072 | 91.952 | 66.725 | -19.535 | 1.00 | 7.52 | lite |
| ATOM | 649 | C | GLY | 1072 | 91.219 | 65.428 | -19.825 | 1.00 | 7.52 | lite |
| ATOM | 650 | O | GLY | 1072 | 90.002 | 65.388 | -19.848 | 1.00 | 15.25 | lite |
| ATOM | 651 | N | THR | 1073 | 91.915 | 64.353 | -20.055 | 1.00 | 2.00 | lite |
| ATOM | 653 | CA | THR | 1073 | 91.248 | 63.100 | -20.347 | 1.00 | 2.00 | lite |
| ATOM | 654 | CB | THR | 1073 | 91.979 | 62.301 | -21.368 | 1.00 | 16.39 | lite |
| ATOM | 655 | OG1 | THR | 1073 | 93.213 | 62.189 | -20.748 | 1.00 | 16.39 | lite |
| ATOM | 657 | CG2 | THR | 1073 | 92.284 | 62.916 | -22.694 | 1.00 | 16.39 | lite |
| ATOM | 658 | C | THR | 1073 | 91.104 | 62.179 | -19.161 | 1.00 | 2.00 | lite |
| ATOM | 659 | O | THR | 1073 | 90.594 | 61.077 | -19.319 | 1.00 | 16.39 | lite |
| ATOM | 660 | N | ASP | 1074 | 91.569 | 62.521 | -17.964 | 1.00 | 16.36 | lite |

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| ATOM | 662 | CA | ASP | 1074 | 91.503 | 61.616 | -16.813 | 1.00 | 16.36 | lite |
|------|-----|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 663 | CB | ASP | 1074 | 92.920 | 61.253 | -16.358 | 1.00 | 21.24 | lite |
| ATOM | 664 | CG | ASP | 1074 | 93.800 | 60.345 | -17.252 | 1.00 | 21.24 | lite |
| ATOM | 665 | OD1 | ASP | 1074 | 94.873 | 59.941 | -16.780 | 1.00 | 21.24 | lite |
| ATOM | 666 | OD2 | ASP | 1074 | 93.475 | 60.004 | -18.403 | 1.00 | 21.24 | lite |
| ATOM | 667 | C | ASP | 1074 | 90.734 | 62.171 | -15.618 | 1.00 | 16.36 | lite |
| ATOM | 668 | O | ASP | 1074 | 91.088 | 63.252 | -15.122 | 1.00 | 21.24 | lite |
| ATOM | 669 | N | PHE | 1075 | 89.647 | 61.530 | -15.160 | 1.00 | 11.55 | lite |
| ATOM | 671 | CA | PHE | 1075 | 88.827 | 61.973 | -14.013 | 1.00 | 11.55 | lite |
| ATOM | 672 | CB | PHE | 1075 | 87.522 | 62.523 | -14.508 | 1.00 | 13.13 | lite |
| ATOM | 673 | CG | PHE | 1075 | 87.754 | 63.671 | -15.436 | 1.00 | 13.13 | lite |
| ATOM | 674 | CD1 | PHE | 1075 | 87.948 | 63.450 | -16.753 | 1.00 | 13.13 | lite |
| ATOM | 675 | CD2 | PHE | 1075 | 87.834 | 64.937 | -14.927 | 1.00 | 13.13 | lite |
| ATOM | 676 | CE1 | PHE | 1075 | 88.244 | 64.534 | -17.544 | 1.00 | 13.13 | lite |
| ATOM | 677 | CE2 | PHE | 1075 | 88.132 | 66.020 | -15.731 | 1.00 | 13.13 | lite |
| ATOM | 678 | CZ | PHE | 1075 | 88.341 | 65.824 | -17.053 | 1.00 | 13.13 | lite |
| ATOM | 679 | C | PHE | 1075 | 88.457 | 60.948 | -12.925 | 1.00 | 11.55 | lite |
| ATOM | 680 | O | PHE | 1075 | 88.264 | 59.775 | -13.275 | 1.00 | 13.13 | lite |
| ATOM | 681 | N | THR | 1076 | 88.312 | 61.221 | -11.626 | 1.00 | 4.80 | lite |
| ATOM | 683 | CA | THR | 1076 | 87.842 | 60.190 | -10.710 | 1.00 | 4.80 | lite |
| ATOM | 684 | CB | THR | 1076 | 88.914 | 59.661 | -9.738 | 1.00 | 10.39 | lite |
| ATOM | 685 | OG1 | THR | 1076 | 89.256 | 60.776 | -8.961 | 1.00 | 10.39 | lite |
| ATOM | 687 | CG2 | THR | 1076 | 90.223 | 59.215 | -10.319 | 1.00 | 10.39 | lite |
| ATOM | 688 | C | THR | 1076 | 86.698 | 60.614 | -9.801 | 1.00 | 4.80 | lite |
| ATOM | 689 | O | THR | 1076 | 86.554 | 61.798 | -9.488 | 1.00 | 10.39 | lite |
| ATOM | 690 | N | LEU | 1077 | 85.864 | 59.632 | -9.442 | 1.00 | 8.91 | lite |
| ATOM | 692 | CA | LEU | 1077 | 84.900 | 59.741 | -8.362 | 1.00 | 8.91 | lite |
| ATOM | 693 | CB | LEU | 1077 | 83.590 | 59.087 | -8.663 | 1.00 | 9.46 | lite |
| ATOM | 694 | CG | LEU | 1077 | 82.478 | 59.229 | -7.640 | 1.00 | 9.46 | lite |
| ATOM | 695 | CD1 | LEU | 1077 | 82.245 | 60.686 | -7.351 | 1.00 | 9.46 | lite |
| ATOM | 696 | CD2 | LEU | 1077 | 81.186 | 58.690 | -8.183 | 1.00 | 9.46 | lite |
| ATOM | 697 | C | LEU | 1077 | 85.398 | 59.064 | -7.092 | 1.00 | 8.91 | lite |
| ATOM | 698 | O | LEU | 1077 | 85.895 | 57.932 | -7.078 | 1.00 | 9.46 | lite |
| ATOM | 699 | N | ASN | 1078 | 85.182 | 59.767 | -5.977 | 1.00 | 13.15 | lite |
| ATOM | 701 | CA | ASN | 1078 | 85.586 | 59.280 | -4.638 | 1.00 | 13.15 | lite |
| ATOM | 702 | CB | ASN | 1078 | 86.845 | 59.977 | -4.069 | 1.00 | 29.42 | lite |
| ATOM | 703 | CG | ASN | 1078 | 88.156 | 59.832 | -4.853 | 1.00 | 29.42 | lite |
| ATOM | 704 | OD1 | ASN | 1078 | 88.472 | 60.547 | -5.817 | 1.00 | 29.42 | lite |
| ATOM | 705 | ND2 | ASN | 1078 | 89.040 | 58.936 | -4.445 | 1.00 | 29.42 | lite |
| ATOM | 708 | C | ASN | 1078 | 84.573 | 59.437 | -3.524 | 1.00 | 13.15 | lite |
| ATOM | 709 | O | ASN | 1078 | 84.348 | 60.539 | -3.017 | 1.00 | 29.42 | lite |
| ATOM | 710 | N | ILE | 1079 | 83.995 | 58.280 | -3.254 | 1.00 | 23.54 | lite |
| ATOM | 712 | CA | ILE | 1079 | 83.068 | 58.099 | -2.148 | 1.00 | 23.54 | lite |
| ATOM | 713 | CB | ILE | 1079 | 81.988 | 56.933 | -2.224 | 1.00 | 26.85 | lite |
| ATOM | 714 | CG2 | ILE | 1079 | 80.812 | 57.303 | -1.286 | 1.00 | 26.85 | lite |
| ATOM | 715 | CG1 | ILE | 1079 | 81.293 | 56.727 | -3.576 | 1.00 | 26.85 | lite |
| ATOM | 716 | CD1 | ILE | 1079 | 82.173 | 56.180 | -4.740 | 1.00 | 26.85 | lite |
| ATOM | 717 | C | ILE | 1079 | 83.900 | 57.685 | -0.931 | 1.00 | 23.54 | lite |
| ATOM | 718 | O | ILE | 1079 | 84.364 | 56.552 | -0.732 | 1.00 | 26.85 | lite |
| ATOM | 719 | N | HIS | 1080 | 84.315 | 58.617 | -0.125 | 1.00 | 32.96 | lite |
| ATOM | 721 | CA | HIS | 1080 | 84.857 | 58.275 | 1.171 | 1.00 | 32.96 | lite |
| ATOM | 722 | CB | HIS | 1080 | 86.238 | 58.903 | 1.446 | 1.00 | 38.62 | lite |
| ATOM | 723 | CG | HIS | 1080 | 86.798 | 58.584 | 2.835 | 1.00 | 38.62 | lite |
| ATOM | 724 | CD2 | HIS | 1080 | 87.112 | 59.506 | 3.833 | 1.00 | 38.62 | lite |
| ATOM | 725 | ND1 | HIS | 1080 | 87.061 | 57.359 | 3.316 | 1.00 | 38.62 | lite |
| ATOM | 727 | CE1 | HIS | 1080 | 87.528 | 57.457 | 4.556 | 1.00 | 38.62 | lite |
| ATOM | 728 | NE2 | HIS | 1080 | 87.548 | 58.759 | 4.835 | 1.00 | 38.62 | lite |
| ATOM | 730 | C | HIS | 1080 | 83.877 | 58.956 | 2.097 | 1.00 | 32.96 | lite |
| ATOM | 731 | O | HIS | 1080 | 83.690 | 60.154 | 1.887 | 1.00 | 38.62 | lite |
| ATOM | 732 | N | CPR | 1081 | 83.161 | 58.450 | 3.145 | 1.00 | 27.25 | lite |
| ATOM | 733 | CD | CPR | 1081 | 82.866 | 59.453 | 4.144 | 1.00 | 16.10 | lite |
| ATOM | 734 | CA | CPR | 1081 | 83.130 | 57.081 | 3.733 | 1.00 | 27.25 | lite |
| ATOM | 735 | CB | CPR | 1081 | 82.854 | 57.255 | 5.240 | 1.00 | 16.10 | lite |
| ATOM | 736 | CG | CPR | 1081 | 82.469 | 58.721 | 5.416 | 1.00 | 16.10 | lite |
| ATOM | 737 | C | CPR | 1081 | 82.038 | 56.148 | 3.096 | 1.00 | 27.25 | lite |
| ATOM | 738 | O | CPR | 1081 | 80.860 | 56.480 | 3.091 | 1.00 | 16.10 | lite |
| ATOM | 739 | N | VAL | 1082 | 82.308 | 55.010 | 2.442 | 1.00 | 17.93 | lite |

| ATOM | 741 | CA  | VAL | 1082 | 81.250 | 54.323 | 1.725   | 1.00 | 17.93 | lite |
|------|-----|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 742 | CB  | VAL | 1082 | 81.783 | 53.068 | 1.036   | 1.00 | 17.30 | lite |
| ATOM | 743 | CG1 | VAL | 1082 | 80.698 | 52.155 | 0.476   | 1.00 | 17.30 | lite |
| ATOM | 744 | CG2 | VAL | 1082 | 82.636 | 53.557 | -0.091  | 1.00 | 17.30 | lite |
| ATOM | 745 | C   | VAL | 1082 | 80.155 | 53.934 | 2.695   | 1.00 | 17.93 | lite |
| ATOM | 746 | O   | VAL | 1082 | 80.394 | 53.176 | 3.643   | 1.00 | 17.30 | lite |
| ATOM | 747 | N   | GLU | 1083 | 79.047 | 54.650 | 2.565   | 1.00 | 18.44 | lite |
| ATOM | 749 | CA  | GLU | 1083 | 77.882 | 54.432 | 3.410   | 1.00 | 18.44 | lite |
| ATOM | 750 | CB  | GLU | 1083 | 77.242 | 55.759 | 3.426   | 1.00 | 38.46 | lite |
| ATOM | 751 | CG  | GLU | 1083 | 76.252 | 55.970 | 4.536   | 1.00 | 38.46 | lite |
| ATOM | 752 | CD  | GLU | 1083 | 76.885 | 55.957 | 5.922   | 1.00 | 38.46 | lite |
| ATOM | 753 | OE1 | GLU | 1083 | 76.657 | 54.994 | 6.684   | 1.00 | 38.46 | lite |
| ATOM | 754 | OE2 | GLU | 1083 | 77.588 | 56.929 | 6.218   | 1.00 | 38.46 | lite |
| ATOM | 755 | C   | GLU | 1083 | 76.930 | 53.296 | 2.916   | 1.00 | 18.44 | lite |
| ATOM | 756 | O   | GLU | 1083 | 76.963 | 52.979 | 1.725   | 1.00 | 38.46 | lite |
| ATOM | 757 | N   | GLU | 1084 | 75.986 | 52.691 | 3.661   | 1.00 | 26.38 | lite |
| ATOM | 759 | CA  | GLU | 1084 | 75.224 | 51.508 | 3.203   | 1.00 | 26.38 | lite |
| ATOM | 760 | CB  | GLU | 1084 | 74.010 | 51.024 | 4.144   | 1.00 | 53.02 | lite |
| ATOM | 761 | CG  | GLU | 1084 | 73.849 | 50.834 | 5.742   | 1.00 | 53.02 | lite |
| ATOM | 762 | CD  | GLU | 1084 | 72.682 | 49.850 | 6.239   | 1.00 | 53.02 | lite |
| ATOM | 763 | OE1 | GLU | 1084 | 72.780 | 49.146 | 7.289   | 1.00 | 53.02 | lite |
| ATOM | 764 | OE2 | GLU | 1084 | 71.642 | 49.745 | 5.548   | 1.00 | 53.02 | lite |
| ATOM | 765 | C   | GLU | 1084 | 74.569 | 51.845 | 1.859   | 1.00 | 26.38 | lite |
| ATOM | 766 | O   | GLU | 1084 | 74.665 | 51.164 | 0.855   | 1.00 | 53.02 | lite |
| ATOM | 767 | N   | GLU | 1085 | 74.093 | 53.060 | 1.728   | 1.00 | 23.30 | lite |
| ATOM | 769 | CA  | GLU | 1085 | 73.370 | 53.538 | 0.557   | 1.00 | 23.30 | lite |
| ATOM | 770 | CB  | GLU | 1085 | 72.675 | 54.857 | 0.850   | 1.00 | 47.71 | lite |
| ATOM | 771 | CG  | GLU | 1085 | 71.817 | 54.976 | 2.074   | 1.00 | 47.71 | lite |
| ATOM | 772 | CD  | GLU | 1085 | 72.707 | 55.174 | 3.290   | 1.00 | 47.71 | lite |
| ATOM | 773 | OE1 | GLU | 1085 | 73.181 | 56.326 | 3.434   | 1.00 | 47.71 | lite |
| ATOM | 774 | OE2 | GLU | 1085 | 72.942 | 54.177 | 4.026   | 1.00 | 47.71 | lite |
| ATOM | 775 | C   | GLU | 1085 | 74.151 | 53.798 | -0.738  | 1.00 | 23.30 | lite |
| ATOM | 776 | O   | GLU | 1085 | 73.594 | 54.259 | -1.747  | 1.00 | 47.71 | lite |
| ATOM | 777 | N   | ASP | 1086 | 75.465 | 53.640 | -0.775  | 1.00 | 19.53 | lite |
| ATOM | 779 | CA  | ASP | 1086 | 76.080 | 53.980 | -2.033  | 1.00 | 19.53 | lite |
| ATOM | 780 | CB  | ASP | 1086 | 77.422 | 54.480 | -1.618  | 1.00 | 14.76 | lite |
| ATOM | 781 | CG  | ASP | 1086 | 77.171 | 55.763 | -0.819  | 1.00 | 14.76 | lite |
| ATOM | 782 | OD1 | ASP | 1086 | 78.009 | 56.008 | 0.035   | 1.00 | 14.76 | lite |
| ATOM | 783 | OD2 | ASP | 1086 | 76.165 | 56.494 | -1.012  | 1.00 | 14.76 | lite |
| ATOM | 784 | C   | ASP | 1086 | 76.075 | 52.955 | -3.136  | 1.00 | 19.53 | lite |
| ATOM | 785 | O   | ASP | 1086 | 76.525 | 53.230 | -4.243  | 1.00 | 14.76 | lite |
| ATOM | 786 | N   | ALA | 1087 | 75.466 | 51.802 | -2.855  | 1.00 | 23.14 | lite |
| ATOM | 788 | CA  | ALA | 1087 | 75.341 | 50.700 | -3.806  | 1.00 | 23.14 | lite |
| ATOM | 789 | CB  | ALA | 1087 | 74.710 | 49.487 | -3.136  | 1.00 | 24.82 | lite |
| ATOM | 790 | C   | ALA | 1087 | 74.471 | 51.094 | -4.999  | 1.00 | 23.14 | lite |
| ATOM | 791 | O   | ALA | 1087 | 73.262 | 51.361 | -4.893  | 1.00 | 24.82 | lite |
| ATOM | 792 | N   | ALA | 1088 | 75.214 | 51.220 | -6.094  | 1.00 | 13.23 | lite |
| ATOM | 794 | CA  | ALA | 1088 | 74.699 | 51.692 | -7.356  | 1.00 | 13.23 | lite |
| ATOM | 795 | CB  | ALA | 1088 | 74.287 | 53.152 | -7.186  | 1.00 | 12.26 | lite |
| ATOM | 796 | C   | ALA | 1088 | 75.711 | 51.590 | -8.523  | 1.00 | 13.23 | lite |
| ATOM | 797 | O   | ALA | 1088 | 76.835 | 51.018 | -8.453  | 1.00 | 12.26 | lite |
| ATOM | 798 | N   | THR | 1089 | 75.286 | 52.164 | -9.650  | 1.00 | 2.00  | lite |
| ATOM | 800 | CA  | THR | 1089 | 76.211 | 52.289 | -10.740 | 1.00 | 2.00  | lite |
| ATOM | 801 | CB  | THR | 1089 | 75.667 | 51.762 | -12.002 | 1.00 | 10.43 | lite |
| ATOM | 802 | OG1 | THR | 1089 | 75.145 | 50.524 | -11.601 | 1.00 | 10.43 | lite |
| ATOM | 804 | CG2 | THR | 1089 | 76.664 | 51.352 | -13.052 | 1.00 | 10.43 | lite |
| ATOM | 805 | C   | THR | 1089 | 76.543 | 53.714 | -10.963 | 1.00 | 2.00  | lite |
| ATOM | 806 | O   | THR | 1089 | 75.738 | 54.642 | -10.850 | 1.00 | 10.43 | lite |
| ATOM | 807 | N   | TYR | 1090 | 77.832 | 53.888 | -11.153 | 1.00 | 13.42 | lite |
| ATOM | 809 | CA  | TYR | 1090 | 78.303 | 55.219 | -11.464 | 1.00 | 13.42 | lite |
| ATOM | 810 | CB  | TYR | 1090 | 79.349 | 55.609 | -10.461 | 1.00 | 7.10  | lite |
| ATOM | 811 | CG  | TYR | 1090 | 78.769 | 55.596 | -9.054  | 1.00 | 7.10  | lite |
| ATOM | 812 | CD1 | TYR | 1090 | 78.356 | 56.776 | -8.502  | 1.00 | 7.10  | lite |
| ATOM | 813 | CE1 | TYR | 1090 | 77.814 | 56.774 | -7.257  | 1.00 | 7.10  | lite |
| ATOM | 814 | CD2 | TYR | 1090 | 78.643 | 54.407 | -8.365  | 1.00 | 7.10  | lite |
| ATOM | 815 | CE2 | TYR | 1090 | 78.105 | 54.411 | -7.121  | 1.00 | 7.10  | lite |
| ATOM | 816 | CZ  | TYR | 1090 | 77.700 | 55.595 | -6.595  | 1.00 | 7.10  | lite |

| ATOM | 817 | OH | TYR | 1090 | 77.170 | 55.602 | -5.338 | 1.00 | 7.10 | lite |
|------|-----|-----|-----|------|--------|--------|--------|------|------|------|
| ATOM | 819 | C | TYR | 1090 | 78.841 | 55.226 | -12.880 | 1.00 | 13.42 | lite |
| ATOM | 820 | O | TYR | 1090 | 79.603 | 54.310 | -13.289 | 1.00 | 7.10 | lite |
| ATOM | 821 | N | TYR | 1091 | 78.205 | 56.185 | -13.607 | 1.00 | 9.10 | lite |
| ATOM | 823 | CA | TYR | 1091 | 78.482 | 56.483 | -15.021 | 1.00 | 9.10 | lite |
| ATOM | 824 | CB | TYR | 1091 | 77.293 | 56.658 | -15.890 | 1.00 | 16.72 | lite |
| ATOM | 825 | CG | TYR | 1091 | 76.367 | 55.462 | -15.871 | 1.00 | 16.72 | lite |
| ATOM | 826 | CD1 | TYR | 1091 | 75.225 | 55.532 | -15.094 | 1.00 | 16.72 | lite |
| ATOM | 827 | CE1 | TYR | 1091 | 74.382 | 54.462 | -15.031 | 1.00 | 16.72 | lite |
| ATOM | 828 | CD2 | TYR | 1091 | 76.684 | 54.326 | -16.603 | 1.00 | 16.72 | lite |
| ATOM | 829 | CE2 | TYR | 1091 | 75.837 | 53.255 | -16.535 | 1.00 | 16.72 | lite |
| ATOM | 830 | CZ | TYR | 1091 | 74.697 | 53.338 | -15.751 | 1.00 | 16.72 | lite |
| ATOM | 831 | OH | TYR | 1091 | 73.811 | 52.266 | -15.696 | 1.00 | 16.72 | lite |
| ATOM | 833 | C | TYR | 1091 | 79.127 | 57.823 | -15.150 | 1.00 | 9.10 | lite |
| ATOM | 834 | O | TYR | 1091 | 78.733 | 58.718 | -14.412 | 1.00 | 16.72 | lite |
| ATOM | 835 | N | CYS | 1092 | 80.093 | 58.048 | -15.998 | 1.00 | 6.50 | lite |
| ATOM | 837 | CA | CYS | 1092 | 80.481 | 59.426 | -16.238 | 1.00 | 6.50 | lite |
| ATOM | 838 | C | CYS | 1092 | 79.990 | 59.833 | -17.610 | 1.00 | 6.50 | lite |
| ATOM | 839 | O | CYS | 1092 | 79.912 | 58.990 | -18.477 | 1.00 | 14.68 | lite |
| ATOM | 840 | CB | CYS | 1092 | 81.983 | 59.616 | -16.196 | 1.00 | 14.68 | lite |
| ATOM | 841 | SG | CYS | 1092 | 82.897 | 58.282 | -16.970 | 1.00 | 14.68 | lite |
| ATOM | 842 | N | GLN | 1093 | 79.531 | 61.045 | -17.894 | 1.00 | 15.09 | lite |
| ATOM | 844 | CA | GLN | 1093 | 79.239 | 61.436 | -19.268 | 1.00 | 15.09 | lite |
| ATOM | 845 | CB | GLN | 1093 | 77.727 | 61.514 | -19.565 | 1.00 | 11.32 | lite |
| ATOM | 846 | CG | GLN | 1093 | 77.012 | 62.602 | -18.916 | 1.00 | 11.32 | lite |
| ATOM | 847 | CD | GLN | 1093 | 76.782 | 63.860 | -19.729 | 1.00 | 11.32 | lite |
| ATOM | 848 | OE1 | GLN | 1093 | 77.101 | 63.953 | -20.893 | 1.00 | 11.32 | lite |
| ATOM | 849 | NE2 | GLN | 1093 | 76.226 | 64.946 | -19.234 | 1.00 | 11.32 | lite |
| ATOM | 852 | C | GLN | 1093 | 79.874 | 62.776 | -19.635 | 1.00 | 15.09 | lite |
| ATOM | 853 | O | GLN | 1093 | 80.057 | 63.671 | -18.796 | 1.00 | 11.32 | lite |
| ATOM | 854 | N | GLN | 1094 | 80.244 | 62.941 | -20.889 | 1.00 | 9.68 | lite |
| ATOM | 856 | CA | GLN | 1094 | 80.827 | 64.178 | -21.266 | 1.00 | 9.68 | lite |
| ATOM | 857 | CB | GLN | 1094 | 82.133 | 63.944 | -22.020 | 1.00 | 12.83 | lite |
| ATOM | 858 | CG | GLN | 1094 | 82.124 | 63.177 | -23.283 | 1.00 | 12.83 | lite |
| ATOM | 859 | CD | GLN | 1094 | 81.618 | 63.965 | -24.452 | 1.00 | 12.83 | lite |
| ATOM | 860 | OE1 | GLN | 1094 | 81.773 | 65.183 | -24.533 | 1.00 | 12.83 | lite |
| ATOM | 861 | NE2 | GLN | 1094 | 80.924 | 63.332 | -25.349 | 1.00 | 12.83 | lite |
| ATOM | 864 | C | GLN | 1094 | 79.905 | 65.043 | -22.075 | 1.00 | 9.68 | lite |
| ATOM | 865 | O | GLN | 1094 | 79.110 | 64.633 | -22.920 | 1.00 | 12.83 | lite |
| ATOM | 866 | N | SER | 1095 | 80.089 | 66.309 | -21.743 | 1.00 | 16.09 | lite |
| ATOM | 868 | CA | SER | 1095 | 79.362 | 67.412 | -22.340 | 1.00 | 16.09 | lite |
| ATOM | 869 | CB | SER | 1095 | 78.736 | 68.255 | -21.222 | 1.00 | 13.88 | lite |
| ATOM | 870 | OG | SER | 1095 | 77.773 | 67.669 | -20.344 | 1.00 | 13.88 | lite |
| ATOM | 872 | C | SER | 1095 | 80.368 | 68.247 | -23.153 | 1.00 | 16.09 | lite |
| ATOM | 873 | O | SER | 1095 | 80.159 | 69.424 | -23.437 | 1.00 | 13.88 | lite |
| ATOM | 874 | N | HIS | 1096 | 81.524 | 67.766 | -23.581 | 1.00 | 5.23 | lite |
| ATOM | 876 | CA | HIS | 1096 | 82.422 | 68.621 | -24.306 | 1.00 | 5.23 | lite |
| ATOM | 877 | CB | HIS | 1096 | 83.755 | 68.014 | -24.396 | 1.00 | 7.05 | lite |
| ATOM | 878 | CG | HIS | 1096 | 84.776 | 68.874 | -25.084 | 1.00 | 7.05 | lite |
| ATOM | 879 | CD2 | HIS | 1096 | 85.200 | 68.661 | -26.358 | 1.00 | 7.05 | lite |
| ATOM | 880 | ND1 | HIS | 1096 | 85.441 | 69.909 | -24.582 | 1.00 | 7.05 | lite |
| ATOM | 882 | CE1 | HIS | 1096 | 86.269 | 70.325 | -25.490 | 1.00 | 7.05 | lite |
| ATOM | 883 | NE2 | HIS | 1096 | 86.096 | 69.565 | -26.540 | 1.00 | 7.05 | lite |
| ATOM | 885 | C | HIS | 1096 | 81.919 | 68.843 | -25.695 | 1.00 | 5.23 | lite |
| ATOM | 886 | O | HIS | 1096 | 82.221 | 69.845 | -26.316 | 1.00 | 7.05 | lite |
| ATOM | 887 | N | GLU | 1097 | 81.223 | 67.900 | -26.250 | 1.00 | 2.00 | lite |
| ATOM | 889 | CA | GLU | 1097 | 80.708 | 68.074 | -27.592 | 1.00 | 2.00 | lite |
| ATOM | 890 | CB | GLU | 1097 | 81.701 | 67.693 | -28.626 | 1.00 | 9.51 | lite |
| ATOM | 891 | CG | GLU | 1097 | 82.064 | 66.258 | -28.318 | 1.00 | 9.51 | lite |
| ATOM | 892 | CD | GLU | 1097 | 83.023 | 65.755 | -29.322 | 1.00 | 9.51 | lite |
| ATOM | 893 | OE1 | GLU | 1097 | 82.722 | 64.748 | -29.951 | 1.00 | 9.51 | lite |
| ATOM | 894 | OE2 | GLU | 1097 | 84.061 | 66.389 | -29.478 | 1.00 | 9.51 | lite |
| ATOM | 895 | C | GLU | 1097 | 79.506 | 67.211 | -27.855 | 1.00 | 2.00 | lite |
| ATOM | 896 | O | GLU | 1097 | 79.297 | 66.240 | -27.142 | 1.00 | 9.51 | lite |
| ATOM | 897 | N | ASP | 1098 | 78.721 | 67.537 | -28.862 | 1.00 | 21.82 | lite |
| ATOM | 899 | CA | ASP | 1098 | 77.640 | 66.667 | -29.287 | 1.00 | 21.82 | lite |
| ATOM | 900 | CB | ASP | 1098 | 76.488 | 67.360 | -29.919 | 1.00 | 14.85 | lite |

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| ATOM | 901 | CG | ASP | 1098 | 75.617 | 68.195 | -29.030 | 1.00 | 14.85 | lite |
|------|-----|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 902 | OD1 | ASP | 1098 | 74.956 | 69.058 | -29.593 | 1.00 | 14.85 | lite |
| ATOM | 903 | OD2 | ASP | 1098 | 75.586 | 68.000 | -27.812 | 1.00 | 14.85 | lite |
| ATOM | 904 | C | ASP | 1098 | 78.152 | 65.768 | -30.384 | 1.00 | 21.82 | lite |
| ATOM | 905 | O | ASP | 1098 | 78.807 | 66.302 | -31.276 | 1.00 | 14.85 | lite |
| ATOM | 906 | N | CPR | 1099 | 77.926 | 64.474 | -30.448 | 1.00 | 2.00 | lite |
| ATOM | 907 | CD | CPR | 1099 | 78.400 | 63.653 | -31.558 | 1.00 | 8.50 | lite |
| ATOM | 908 | CA | CPR | 1099 | 77.170 | 63.709 | -29.505 | 1.00 | 2.00 | lite |
| ATOM | 909 | CB | CPR | 1099 | 77.060 | 62.380 | -30.176 | 1.00 | 8.50 | lite |
| ATOM | 910 | CG | CPR | 1099 | 78.374 | 62.292 | -30.924 | 1.00 | 8.50 | lite |
| ATOM | 911 | C | CPR | 1099 | 77.724 | 63.600 | -28.101 | 1.00 | 2.00 | lite |
| ATOM | 912 | O | CPR | 1099 | 78.901 | 63.317 | -27.903 | 1.00 | 8.50 | lite |
| ATOM | 913 | N | LEU | 1100 | 76.867 | 63.824 | -27.123 | 1.00 | 5.12 | lite |
| ATOM | 915 | CA | LEU | 1100 | 77.145 | 63.585 | -25.711 | 1.00 | 5.12 | lite |
| ATOM | 916 | CB | LEU | 1100 | 75.988 | 63.998 | -24.898 | 1.00 | 2.00 | lite |
| ATOM | 917 | CG | LEU | 1100 | 75.800 | 65.332 | -24.348 | 1.00 | 2.00 | lite |
| ATOM | 918 | CD1 | LEU | 1100 | 76.627 | 66.367 | -25.048 | 1.00 | 2.00 | lite |
| ATOM | 919 | CD2 | LEU | 1100 | 74.322 | 65.551 | -24.401 | 1.00 | 2.00 | lite |
| ATOM | 920 | C | LEU | 1100 | 77.359 | 62.089 | -25.444 | 1.00 | 5.12 | lite |
| ATOM | 921 | O | LEU | 1100 | 76.566 | 61.277 | -25.870 | 1.00 | 2.00 | lite |
| ATOM | 922 | N | THR | 1101 | 78.390 | 61.563 | -24.818 | 1.00 | 23.57 | lite |
| ATOM | 924 | CA | THR | 1101 | 78.548 | 60.099 | -24.611 | 1.00 | 23.57 | lite |
| ATOM | 925 | CB | THR | 1101 | 79.794 | 59.544 | -25.398 | 1.00 | 19.39 | lite |
| ATOM | 926 | OG1 | THR | 1101 | 80.947 | 60.290 | -25.056 | 1.00 | 19.39 | lite |
| ATOM | 928 | CG2 | THR | 1101 | 79.724 | 59.752 | -26.874 | 1.00 | 19.39 | lite |
| ATOM | 929 | C | THR | 1101 | 78.691 | 59.623 | -23.141 | 1.00 | 23.57 | lite |
| ATOM | 930 | O | THR | 1101 | 79.192 | 60.355 | -22.308 | 1.00 | 19.39 | lite |
| ATOM | 931 | N | PHE | 1102 | 78.261 | 58.454 | -22.711 | 1.00 | 2.00 | lite |
| ATOM | 933 | CA | PHE | 1102 | 78.392 | 57.953 | -21.373 | 1.00 | 2.00 | lite |
| ATOM | 934 | CB | PHE | 1102 | 77.122 | 57.350 | -20.935 | 1.00 | 2.00 | lite |
| ATOM | 935 | CG | PHE | 1102 | 75.979 | 58.273 | -20.622 | 1.00 | 2.00 | lite |
| ATOM | 936 | CD1 | PHE | 1102 | 75.226 | 58.802 | -21.651 | 1.00 | 2.00 | lite |
| ATOM | 937 | CD2 | PHE | 1102 | 75.719 | 58.541 | -19.294 | 1.00 | 2.00 | lite |
| ATOM | 938 | CE1 | PHE | 1102 | 74.182 | 59.629 | -21.336 | 1.00 | 2.00 | lite |
| ATOM | 939 | CE2 | PHE | 1102 | 74.679 | 59.365 | -18.994 | 1.00 | 2.00 | lite |
| ATOM | 940 | CZ | PHE | 1102 | 73.924 | 59.904 | -20.010 | 1.00 | 2.00 | lite |
| ATOM | 941 | C | PHE | 1102 | 79.447 | 56.865 | -21.284 | 1.00 | 2.00 | lite |
| ATOM | 942 | O | PHE | 1102 | 79.823 | 56.260 | -22.289 | 1.00 | 2.00 | lite |
| ATOM | 943 | N | GLY | 1103 | 79.994 | 56.626 | -20.105 | 1.00 | 2.00 | lite |
| ATOM | 945 | CA | GLY | 1103 | 80.860 | 55.506 | -19.857 | 1.00 | 2.00 | lite |
| ATOM | 946 | C | GLY | 1103 | 79.966 | 54.297 | -19.669 | 1.00 | 2.00 | lite |
| ATOM | 947 | O | GLY | 1103 | 78.722 | 54.429 | -19.587 | 1.00 | 26.70 | lite |
| ATOM | 948 | N | ALA | 1104 | 80.491 | 53.077 | -19.563 | 1.00 | 10.71 | lite |
| ATOM | 950 | CA | ALA | 1104 | 79.594 | 51.921 | -19.387 | 1.00 | 10.71 | lite |
| ATOM | 951 | CB | ALA | 1104 | 80.192 | 50.665 | -20.012 | 1.00 | 11.04 | lite |
| ATOM | 952 | C | ALA | 1104 | 79.207 | 51.571 | -17.949 | 1.00 | 10.71 | lite |
| ATOM | 953 | O | ALA | 1104 | 78.380 | 50.699 | -17.670 | 1.00 | 11.04 | lite |
| ATOM | 954 | N | GLY | 1105 | 79.759 | 52.331 | -17.025 | 1.00 | 4.17 | lite |
| ATOM | 956 | CA | GLY | 1105 | 79.361 | 52.185 | -15.660 | 1.00 | 4.17 | lite |
| ATOM | 957 | C | GLY | 1105 | 80.259 | 51.336 | -14.843 | 1.00 | 4.17 | lite |
| ATOM | 958 | O | GLY | 1105 | 81.045 | 50.544 | -15.371 | 1.00 | 11.04 | lite |
| ATOM | 959 | N | THR | 1106 | 80.126 | 51.653 | -13.545 | 1.00 | 16.46 | lite |
| ATOM | 961 | CA | THR | 1106 | 80.938 | 50.951 | -12.553 | 1.00 | 16.46 | lite |
| ATOM | 962 | CB | THR | 1106 | 82.140 | 51.790 | -12.044 | 1.00 | 15.02 | lite |
| ATOM | 963 | OG1 | THR | 1106 | 83.023 | 52.021 | -13.132 | 1.00 | 15.02 | lite |
| ATOM | 965 | CG2 | THR | 1106 | 82.859 | 51.098 | -10.905 | 1.00 | 15.02 | lite |
| ATOM | 966 | C | THR | 1106 | 80.070 | 50.621 | -11.366 | 1.00 | 16.46 | lite |
| ATOM | 967 | O | THR | 1106 | 79.560 | 51.501 | -10.666 | 1.00 | 15.02 | lite |
| ATOM | 968 | N | LYS | 1107 | 79.920 | 49.322 | -11.178 | 1.00 | 15.95 | lite |
| ATOM | 970 | CA | LYS | 1107 | 79.112 | 48.780 | -10.110 | 1.00 | 15.95 | lite |
| ATOM | 971 | CB | LYS | 1107 | 78.665 | 47.422 | -10.507 | 1.00 | 24.46 | lite |
| ATOM | 972 | CG | LYS | 1107 | 77.212 | 47.136 | -10.247 | 1.00 | 24.46 | lite |
| ATOM | 973 | CD | LYS | 1107 | 76.773 | 46.112 | -11.335 | 1.00 | 24.46 | lite |
| ATOM | 974 | CE | LYS | 1107 | 76.777 | 46.447 | -12.915 | 1.00 | 24.46 | lite |
| ATOM | 975 | NZ | LYS | 1107 | 78.092 | 46.362 | -13.546 | 1.00 | 24.46 | lite |
| ATOM | 979 | C | LYS | 1107 | 79.775 | 48.686 | -8.758 | 1.00 | 15.95 | lite |
| ATOM | 980 | O | LYS | 1107 | 80.771 | 47.986 | -8.580 | 1.00 | 24.46 | lite |

16:31:09

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| ATOM | 981 | N | LEU | 1108 | 79.239 | 49.359 | -7.775 | 1.00 | 14.47 | lite |
|------|-----|-----|-----|------|--------|--------|--------|------|-------|------|
| ATOM | 983 | CA | LEU | 1108 | 79.878 | 49.267 | -6.472 | 1.00 | 14.47 | lite |
| ATOM | 984 | CB | LEU | 1108 | 79.904 | 50.712 | -5.852 | 1.00 | 16.63 | lite |
| ATOM | 985 | CG | LEU | 1108 | 80.394 | 50.960 | -4.419 | 1.00 | 16.63 | lite |
| ATOM | 986 | CD1 | LEU | 1108 | 81.914 | 50.823 | -4.291 | 1.00 | 16.63 | lite |
| ATOM | 987 | CD2 | LEU | 1108 | 80.027 | 52.349 | -4.032 | 1.00 | 16.63 | lite |
| ATOM | 988 | C | LEU | 1108 | 79.191 | 48.239 | -5.554 | 1.00 | 14.47 | lite |
| ATOM | 989 | O | LEU | 1108 | 78.059 | 48.446 | -5.117 | 1.00 | 16.63 | lite |
| ATOM | 990 | N | GLU | 1109 | 79.782 | 47.079 | -5.268 | 1.00 | 22.54 | lite |
| ATOM | 992 | CA | GLU | 1109 | 79.166 | 46.121 | -4.352 | 1.00 | 22.54 | lite |
| ATOM | 993 | CB | GLU | 1109 | 79.450 | 44.672 | -4.812 | 1.00 | 36.27 | lite |
| ATOM | 994 | CG | GLU | 1109 | 80.026 | 43.598 | -3.808 | 1.00 | 36.27 | lite |
| ATOM | 995 | CD | GLU | 1109 | 80.558 | 42.295 | -4.446 | 1.00 | 36.27 | lite |
| ATOM | 996 | OE1 | GLU | 1109 | 80.125 | 41.211 | -4.013 | 1.00 | 36.27 | lite |
| ATOM | 997 | OE2 | GLU | 1109 | 81.397 | 42.380 | -5.365 | 1.00 | 36.27 | lite |
| ATOM | 998 | C | GLU | 1109 | 79.758 | 46.354 | -2.969 | 1.00 | 22.54 | lite |
| ATOM | 999 | O | GLU | 1109 | 80.981 | 46.363 | -2.810 | 1.00 | 36.27 | lite |
| ATOM | 1000 | N | LEU | 1110 | 78.901 | 46.635 | -1.986 | 1.00 | 26.28 | lite |
| ATOM | 1002 | CA | LEU | 1110 | 79.302 | 46.698 | -0.600 | 1.00 | 26.28 | lite |
| ATOM | 1003 | CB | LEU | 1110 | 78.166 | 47.326 | 0.212 | 1.00 | 20.57 | lite |
| ATOM | 1004 | CG | LEU | 1110 | 78.173 | 48.871 | 0.328 | 1.00 | 20.57 | lite |
| ATOM | 1005 | CD1 | LEU | 1110 | 77.601 | 49.549 | -0.914 | 1.00 | 20.57 | lite |
| ATOM | 1006 | CD2 | LEU | 1110 | 77.232 | 49.282 | 1.439 | 1.00 | 20.57 | lite |
| ATOM | 1007 | C | LEU | 1110 | 79.630 | 45.275 | -0.096 | 1.00 | 26.28 | lite |
| ATOM | 1008 | O | LEU | 1110 | 78.883 | 44.282 | -0.332 | 1.00 | 20.57 | lite |
| ATOM | 1009 | N | ARG | 1111 | 80.813 | 45.101 | 0.554 | 1.00 | 27.53 | lite |
| ATOM | 1011 | CA | ARG | 1111 | 81.162 | 43.794 | 1.168 | 1.00 | 27.53 | lite |
| ATOM | 1012 | CB | ARG | 1111 | 82.675 | 43.636 | 1.370 | 1.00 | 40.65 | lite |
| ATOM | 1013 | CG | ARG | 1111 | 83.392 | 43.269 | 0.069 | 1.00 | 40.65 | lite |
| ATOM | 1014 | CD | ARG | 1111 | 84.924 | 43.501 | 0.091 | 1.00 | 40.65 | lite |
| ATOM | 1015 | NE | ARG | 1111 | 85.614 | 42.622 | -0.886 | 1.00 | 40.65 | lite |
| ATOM | 1017 | CZ | ARG | 1111 | 86.826 | 42.878 | -1.531 | 1.00 | 40.65 | lite |
| ATOM | 1018 | NH1 | ARG | 1111 | 87.600 | 44.018 | -1.378 | 1.00 | 40.65 | lite |
| ATOM | 1021 | NH2 | ARG | 1111 | 87.316 | 41.898 | -2.348 | 1.00 | 40.65 | lite |
| ATOM | 1024 | C | ARG | 1111 | 80.470 | 43.674 | 2.536 | 1.00 | 27.53 | lite |
| ATOM | 1025 | O | ARG | 1111 | 80.507 | 44.568 | 3.394 | 1.00 | 40.65 | lite |
| ATOM | 1026 | N | ARG | 1112 | 79.656 | 42.640 | 2.720 | 1.00 | 21.62 | lite |
| ATOM | 1028 | CA | ARG | 1112 | 78.899 | 42.426 | 3.978 | 1.00 | 21.62 | lite |
| ATOM | 1029 | CB | ARG | 1112 | 77.555 | 41.800 | 3.639 | 1.00 | 18.31 | lite |
| ATOM | 1030 | CG | ARG | 1112 | 76.578 | 41.749 | 4.756 | 1.00 | 18.31 | lite |
| ATOM | 1031 | CD | ARG | 1112 | 75.919 | 40.423 | 4.659 | 1.00 | 18.31 | lite |
| ATOM | 1032 | NE | ARG | 1112 | 75.937 | 39.807 | 5.960 | 1.00 | 18.31 | lite |
| ATOM | 1034 | CZ | ARG | 1112 | 74.943 | 39.987 | 6.816 | 1.00 | 18.31 | lite |
| ATOM | 1035 | NH1 | ARG | 1112 | 73.879 | 40.753 | 6.551 | 1.00 | 18.31 | lite |
| ATOM | 1038 | NH2 | ARG | 1112 | 74.958 | 39.319 | 7.954 | 1.00 | 18.31 | lite |
| ATOM | 1041 | C | ARG | 1112 | 79.735 | 41.468 | 4.825 | 1.00 | 21.62 | lite |
| ATOM | 1042 | O | ARG | 1112 | 80.938 | 41.352 | 4.589 | 1.00 | 18.31 | lite |
| ATOM | 1043 | N | ALA | 1113 | 79.258 | 40.715 | 5.801 | 1.00 | 13.63 | lite |
| ATOM | 1045 | CA | ALA | 1113 | 80.165 | 39.806 | 6.454 | 1.00 | 13.63 | lite |
| ATOM | 1046 | CB | ALA | 1113 | 79.684 | 39.592 | 7.877 | 1.00 | 22.15 | lite |
| ATOM | 1047 | C | ALA | 1113 | 80.025 | 38.582 | 5.580 | 1.00 | 13.63 | lite |
| ATOM | 1048 | O | ALA | 1113 | 80.425 | 38.641 | 4.440 | 1.00 | 22.15 | lite |
| ATOM | 1049 | N | ASP | 1114 | 79.344 | 37.523 | 5.953 | 1.00 | 17.93 | lite |
| ATOM | 1051 | CA | ASP | 1114 | 79.290 | 36.284 | 5.215 | 1.00 | 17.93 | lite |
| ATOM | 1052 | CB | ASP | 1114 | 80.487 | 35.479 | 5.500 | 1.00 | 25.53 | lite |
| ATOM | 1053 | CG | ASP | 1114 | 81.221 | 34.907 | 4.324 | 1.00 | 25.53 | lite |
| ATOM | 1054 | OD1 | ASP | 1114 | 81.664 | 35.682 | 3.474 | 1.00 | 25.53 | lite |
| ATOM | 1055 | OD2 | ASP | 1114 | 81.404 | 33.692 | 4.326 | 1.00 | 25.53 | lite |
| ATOM | 1056 | C | ASP | 1114 | 78.103 | 35.600 | 5.834 | 1.00 | 17.93 | lite |
| ATOM | 1057 | O | ASP | 1114 | 77.899 | 35.598 | 7.063 | 1.00 | 25.53 | lite |
| ATOM | 1058 | N | ALA | 1115 | 77.380 | 34.934 | 4.955 | 1.00 | 22.75 | lite |
| ATOM | 1060 | CA | ALA | 1115 | 76.068 | 34.467 | 5.360 | 1.00 | 22.75 | lite |
| ATOM | 1061 | CB | ALA | 1115 | 74.993 | 35.575 | 5.294 | 1.00 | 25.98 | lite |
| ATOM | 1062 | C | ALA | 1115 | 75.616 | 33.395 | 4.426 | 1.00 | 22.75 | lite |
| ATOM | 1063 | O | ALA | 1115 | 75.875 | 33.324 | 3.205 | 1.00 | 25.98 | lite |
| ATOM | 1064 | N | ALA | 1116 | 74.948 | 32.530 | 5.157 | 1.00 | 24.46 | lite |
| ATOM | 1066 | CA | ALA | 1116 | 74.395 | 31.365 | 4.529 | 1.00 | 24.46 | lite |

| ATOM | 1067 | CB  | ALA | 1116 | 74.337 | 30.246 | 5.485  | 1.00 | 43.69 | lite |
|------|------|-----|-----|------|--------|--------|--------|------|-------|------|
| ATOM | 1068 | C   | ALA | 1116 | 72.991 | 31.600 | 4.045  | 1.00 | 24.46 | lite |
| ATOM | 1069 | O   | ALA | 1116 | 72.167 | 32.190 | 4.765  | 1.00 | 43.69 | lite |
| ATOM | 1070 | N   | PRO | 1117 | 72.701 | 31.144 | 2.832  | 1.00 | 11.75 | lite |
| ATOM | 1071 | CD  | PRO | 1117 | 73.622 | 30.548 | 1.898  | 1.00 | 22.48 | lite |
| ATOM | 1072 | CA  | PRO | 1117 | 71.359 | 31.100 | 2.358  | 1.00 | 11.75 | lite |
| ATOM | 1073 | CB  | PRO | 1117 | 71.581 | 30.524 | 0.974  | 1.00 | 22.48 | lite |
| ATOM | 1074 | CG  | PRO | 1117 | 72.728 | 29.600 | 1.149  | 1.00 | 22.48 | lite |
| ATOM | 1075 | C   | PRO | 1117 | 70.324 | 30.375 | 3.251  | 1.00 | 11.75 | lite |
| ATOM | 1076 | O   | PRO | 1117 | 70.573 | 29.441 | 4.001  | 1.00 | 22.48 | lite |
| ATOM | 1077 | N   | THR | 1118 | 69.123 | 30.887 | 3.254  | 1.00 | 8.58  | lite |
| ATOM | 1079 | CA  | THR | 1118 | 67.991 | 30.235 | 3.860  | 1.00 | 8.58  | lite |
| ATOM | 1080 | CB  | THR | 1118 | 67.033 | 31.229 | 4.446  | 1.00 | 18.93 | lite |
| ATOM | 1081 | OG1 | THR | 1118 | 67.631 | 31.985 | 5.511  | 1.00 | 18.93 | lite |
| ATOM | 1083 | CG2 | THR | 1118 | 65.810 | 30.451 | 4.867  | 1.00 | 18.93 | lite |
| ATOM | 1084 | C   | THR | 1118 | 67.305 | 29.587 | 2.680  | 1.00 | 8.58  | lite |
| ATOM | 1085 | O   | THR | 1118 | 66.816 | 30.336 | 1.831  | 1.00 | 18.93 | lite |
| ATOM | 1086 | N   | VAL | 1119 | 67.230 | 28.262 | 2.560  | 1.00 | 12.36 | lite |
| ATOM | 1088 | CA  | VAL | 1119 | 66.628 | 27.605 | 1.379  | 1.00 | 12.36 | lite |
| ATOM | 1089 | CB  | VAL | 1119 | 67.441 | 26.378 | 0.938  | 1.00 | 10.55 | lite |
| ATOM | 1090 | CG1 | VAL | 1119 | 67.036 | 25.933 | -0.434 | 1.00 | 10.55 | lite |
| ATOM | 1091 | CG2 | VAL | 1119 | 68.904 | 26.743 | 0.814  | 1.00 | 10.55 | lite |
| ATOM | 1092 | C   | VAL | 1119 | 65.193 | 27.141 | 1.577  | 1.00 | 12.36 | lite |
| ATOM | 1093 | O   | VAL | 1119 | 64.810 | 26.614 | 2.624  | 1.00 | 10.55 | lite |
| ATOM | 1094 | N   | SER | 1120 | 64.344 | 27.266 | 0.581  | 1.00 | 2.00  | lite |
| ATOM | 1096 | CA  | SER | 1120 | 62.964 | 26.881 | 0.726  | 1.00 | 2.00  | lite |
| ATOM | 1097 | CB  | SER | 1120 | 62.065 | 28.059 | 0.783  | 1.00 | 14.54 | lite |
| ATOM | 1098 | OG  | SER | 1120 | 62.635 | 28.996 | 1.670  | 1.00 | 14.54 | lite |
| ATOM | 1100 | C   | SER | 1120 | 62.560 | 26.104 | -0.468 | 1.00 | 2.00  | lite |
| ATOM | 1101 | O   | SER | 1120 | 62.863 | 26.601 | -1.533 | 1.00 | 14.54 | lite |
| ATOM | 1102 | N   | ILE | 1121 | 61.966 | 24.902 | -0.406 | 1.00 | 12.54 | lite |
| ATOM | 1104 | CA  | ILE | 1121 | 61.431 | 24.270 | -1.596 | 1.00 | 12.54 | lite |
| ATOM | 1105 | CB  | ILE | 1121 | 61.957 | 22.784 | -1.714 | 1.00 | 11.72 | lite |
| ATOM | 1106 | CG2 | ILE | 1121 | 61.112 | 21.749 | -1.039 | 1.00 | 11.72 | lite |
| ATOM | 1107 | CG1 | ILE | 1121 | 61.974 | 22.464 | -3.193 | 1.00 | 11.72 | lite |
| ATOM | 1108 | CD1 | ILE | 1121 | 62.413 | 21.052 | -3.593 | 1.00 | 11.72 | lite |
| ATOM | 1109 | C   | ILE | 1121 | 59.882 | 24.373 | -1.545 | 1.00 | 12.54 | lite |
| ATOM | 1110 | O   | ILE | 1121 | 59.160 | 24.448 | -0.531 | 1.00 | 11.72 | lite |
| ATOM | 1111 | N   | PHE | 1122 | 59.329 | 24.496 | -2.730 | 1.00 | 9.36  | lite |
| ATOM | 1113 | CA  | PHE | 1122 | 57.920 | 24.654 | -2.975 | 1.00 | 9.36  | lite |
| ATOM | 1114 | CB  | PHE | 1122 | 57.757 | 25.995 | -3.568 | 1.00 | 13.31 | lite |
| ATOM | 1115 | CG  | PHE | 1122 | 57.856 | 26.969 | -2.440 | 1.00 | 13.31 | lite |
| ATOM | 1116 | CD1 | PHE | 1122 | 56.768 | 27.143 | -1.615 | 1.00 | 13.31 | lite |
| ATOM | 1117 | CD2 | PHE | 1122 | 59.025 | 27.662 | -2.255 | 1.00 | 13.31 | lite |
| ATOM | 1118 | CE1 | PHE | 1122 | 56.880 | 28.037 | -0.588 | 1.00 | 13.31 | lite |
| ATOM | 1119 | CE2 | PHE | 1122 | 59.109 | 28.560 | -1.217 | 1.00 | 13.31 | lite |
| ATOM | 1120 | CZ  | PHE | 1122 | 58.037 | 28.743 | -0.388 | 1.00 | 13.31 | lite |
| ATOM | 1121 | C   | PHE | 1122 | 57.504 | 23.568 | -3.933 | 1.00 | 9.36  | lite |
| ATOM | 1122 | O   | PHE | 1122 | 58.192 | 23.419 | -4.932 | 1.00 | 13.31 | lite |
| ATOM | 1123 | N   | PRO | 1123 | 56.546 | 22.706 | -3.752 | 1.00 | 2.00  | lite |
| ATOM | 1124 | CD  | PRO | 1123 | 56.236 | 22.191 | -2.460 | 1.00 | 2.00  | lite |
| ATOM | 1125 | CA  | PRO | 1123 | 56.070 | 21.846 | -4.804 | 1.00 | 2.00  | lite |
| ATOM | 1126 | CB  | PRO | 1123 | 55.571 | 20.709 | -4.016 | 1.00 | 2.00  | lite |
| ATOM | 1127 | CG  | PRO | 1123 | 55.139 | 21.260 | -2.737 | 1.00 | 2.00  | lite |
| ATOM | 1128 | C   | PRO | 1123 | 55.060 | 22.548 | -5.688 | 1.00 | 2.00  | lite |
| ATOM | 1129 | O   | PRO | 1123 | 54.596 | 23.600 | -5.264 | 1.00 | 2.00  | lite |
| ATOM | 1130 | N   | PRO | 1124 | 54.671 | 22.095 | -6.881 | 1.00 | 15.53 | lite |
| ATOM | 1131 | CD  | PRO | 1124 | 54.925 | 20.772 | -7.379 | 1.00 | 18.17 | lite |
| ATOM | 1132 | CA  | PRO | 1124 | 53.603 | 22.670 | -7.681 | 1.00 | 15.53 | lite |
| ATOM | 1133 | CB  | PRO | 1124 | 53.399 | 21.727 | -8.814 | 1.00 | 18.17 | lite |
| ATOM | 1134 | CG  | PRO | 1124 | 54.658 | 20.973 | -8.841 | 1.00 | 18.17 | lite |
| ATOM | 1135 | C   | PRO | 1124 | 52.261 | 22.942 | -6.961 | 1.00 | 15.53 | lite |
| ATOM | 1136 | O   | PRO | 1124 | 51.791 | 22.283 | -6.019 | 1.00 | 18.17 | lite |
| ATOM | 1137 | N   | SER | 1125 | 51.605 | 24.003 | -7.376 | 1.00 | 26.48 | lite |
| ATOM | 1139 | CA  | SER | 1125 | 50.337 | 24.270 | -6.791 | 1.00 | 26.48 | lite |
| ATOM | 1140 | CB  | SER | 1125 | 50.071 | 25.752 | -6.885 | 1.00 | 23.73 | lite |
| ATOM | 1141 | OG  | SER | 1125 | 50.076 | 26.147 | -8.265 | 1.00 | 23.73 | lite |

| ATOM | 1143 | C | SER | 1125 | 49.307 | 23.460 | -7.571 | 1.00 | 26.48 | lite |
|------|------|------|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 1144 | O | SER | 1125 | 49.269 | 23.322 | -8.794 | 1.00 | 23.73 | lite |
| ATOM | 1145 | N | SER | 1126 | 48.446 | 22.884 | -6.784 | 1.00 | 12.04 | lite |
| ATOM | 1147 | CA | SER | 1126 | 47.175 | 22.276 | -7.169 | 1.00 | 12.04 | lite |
| ATOM | 1148 | CB | SER | 1126 | 46.368 | 22.376 | -5.909 | 1.00 | 24.68 | lite |
| ATOM | 1149 | OG | SER | 1126 | 46.945 | 23.351 | -4.960 | 1.00 | 24.68 | lite |
| ATOM | 1151 | C | SER | 1126 | 46.534 | 23.018 | -8.343 | 1.00 | 12.04 | lite |
| ATOM | 1152 | O | SER | 1126 | 46.273 | 22.532 | -9.425 | 1.00 | 24.68 | lite |
| ATOM | 1153 | N | GLU | 1127 | 46.504 | 24.334 | -8.147 | 1.00 | 13.70 | lite |
| ATOM | 1155 | CA | GLU | 1127 | 45.987 | 25.328 | -9.066 | 1.00 | 13.70 | lite |
| ATOM | 1156 | CB | GLU | 1127 | 46.065 | 26.751 | -8.317 | 1.00 | 29.90 | lite |
| ATOM | 1157 | CG | GLU | 1127 | 45.131 | 27.188 | -7.095 | 1.00 | 29.90 | lite |
| ATOM | 1158 | CD | GLU | 1127 | 45.615 | 27.184 | -5.615 | 1.00 | 29.90 | lite |
| ATOM | 1159 | OE1 | GLU | 1127 | 46.546 | 26.429 | -5.327 | 1.00 | 29.90 | lite |
| ATOM | 1160 | OE2 | GLU | 1127 | 45.085 | 27.900 | -4.726 | 1.00 | 29.90 | lite |
| ATOM | 1161 | C | GLU | 1127 | 46.798 | 25.256 | -10.378 | 1.00 | 13.70 | lite |
| ATOM | 1162 | O | GLU | 1127 | 46.168 | 25.291 | -11.436 | 1.00 | 29.90 | lite |
| ATOM | 1163 | N | GLN | 1128 | 48.145 | 25.107 | -10.456 | 1.00 | 2.00 | lite |
| ATOM | 1165 | CA | GLN | 1128 | 48.851 | 24.935 | -11.741 | 1.00 | 2.00 | lite |
| ATOM | 1166 | CB | GLN | 1128 | 50.322 | 25.118 | -11.633 | 1.00 | 10.07 | lite |
| ATOM | 1167 | CG | GLN | 1128 | 51.084 | 25.005 | -12.960 | 1.00 | 10.07 | lite |
| ATOM | 1168 | CD | GLN | 1128 | 52.569 | 25.184 | -12.796 | 1.00 | 10.07 | lite |
| ATOM | 1169 | OE1 | GLN | 1128 | 53.124 | 25.076 | -11.720 | 1.00 | 10.07 | lite |
| ATOM | 1170 | NE2 | GLN | 1128 | 53.294 | 25.424 | -13.857 | 1.00 | 10.07 | lite |
| ATOM | 1173 | C | GLN | 1128 | 48.714 | 23.572 | -12.342 | 1.00 | 2.00 | lite |
| ATOM | 1174 | O | GLN | 1128 | 48.606 | 23.414 | -13.528 | 1.00 | 10.07 | lite |
| ATOM | 1175 | N | LEU | 1129 | 48.798 | 22.526 | -11.562 | 1.00 | 7.81 | lite |
| ATOM | 1177 | CA | LEU | 1129 | 48.687 | 21.168 | -12.069 | 1.00 | 7.81 | lite |
| ATOM | 1178 | CB | LEU | 1129 | 48.710 | 20.176 | -10.912 | 1.00 | 12.44 | lite |
| ATOM | 1179 | CG | LEU | 1129 | 49.989 | 20.111 | -10.138 | 1.00 | 12.44 | lite |
| ATOM | 1180 | CD1 | LEU | 1129 | 49.771 | 19.257 | -8.929 | 1.00 | 12.44 | lite |
| ATOM | 1181 | CD2 | LEU | 1129 | 51.104 | 19.509 | -10.994 | 1.00 | 12.44 | lite |
| ATOM | 1182 | C | LEU | 1129 | 47.450 | 20.888 | -12.903 | 1.00 | 7.81 | lite |
| ATOM | 1183 | O | LEU | 1129 | 47.452 | 20.196 | -13.913 | 1.00 | 12.44 | lite |
| ATOM | 1184 | N | THR | 1130 | 46.345 | 21.475 | -12.537 | 1.00 | 19.23 | lite |
| ATOM | 1186 | CA | THR | 1130 | 45.123 | 21.228 | -13.263 | 1.00 | 19.23 | lite |
| ATOM | 1187 | CB | THR | 1130 | 44.068 | 21.987 | -12.467 | 1.00 | 28.96 | lite |
| ATOM | 1188 | OG1 | THR | 1130 | 44.139 | 21.376 | -11.162 | 1.00 | 28.96 | lite |
| ATOM | 1190 | CG2 | THR | 1130 | 42.693 | 21.994 | -13.081 | 1.00 | 28.96 | lite |
| ATOM | 1191 | C | THR | 1130 | 45.222 | 21.628 | -14.735 | 1.00 | 19.23 | lite |
| ATOM | 1192 | O | THR | 1130 | 44.532 | 21.112 | -15.622 | 1.00 | 28.96 | lite |
| ATOM | 1193 | N | SER | 1131 | 46.159 | 22.512 | -15.075 | 1.00 | 24.82 | lite |
| ATOM | 1195 | CA | SER | 1131 | 46.355 | 22.878 | -16.479 | 1.00 | 24.82 | lite |
| ATOM | 1196 | CB | SER | 1131 | 46.688 | 24.337 | -16.630 | 1.00 | 34.93 | lite |
| ATOM | 1197 | OG | SER | 1131 | 47.978 | 24.593 | -16.086 | 1.00 | 34.93 | lite |
| ATOM | 1199 | C | SER | 1131 | 47.495 | 22.087 | -17.164 | 1.00 | 24.82 | lite |
| ATOM | 1200 | O | SER | 1131 | 48.095 | 22.487 | -18.186 | 1.00 | 34.93 | lite |
| ATOM | 1201 | N | GLY | 1132 | 47.872 | 20.941 | -16.591 | 1.00 | 38.87 | lite |
| ATOM | 1203 | CA | GLY | 1132 | 48.837 | 20.043 | -17.201 | 1.00 | 38.87 | lite |
| ATOM | 1204 | C | GLY | 1132 | 50.284 | 20.484 | -17.071 | 1.00 | 38.87 | lite |
| ATOM | 1205 | O | GLY | 1132 | 51.152 | 19.793 | -17.638 | 1.00 | 23.72 | lite |
| ATOM | 1206 | N | GLY | 1133 | 50.597 | 21.560 | -16.330 | 1.00 | 2.00 | lite |
| ATOM | 1208 | CA | GLY | 1133 | 51.976 | 21.947 | -16.158 | 1.00 | 2.00 | lite |
| ATOM | 1209 | C | GLY | 1133 | 52.392 | 21.720 | -14.735 | 1.00 | 2.00 | lite |
| ATOM | 1210 | O | GLY | 1133 | 51.498 | 21.600 | -13.936 | 1.00 | 9.38 | lite |
| ATOM | 1211 | N | ALA | 1134 | 53.685 | 21.700 | -14.399 | 1.00 | 6.63 | lite |
| ATOM | 1213 | CA | ALA | 1134 | 54.230 | 21.536 | -13.052 | 1.00 | 6.63 | lite |
| ATOM | 1214 | CB | ALA | 1134 | 54.431 | 20.053 | -12.771 | 1.00 | 8.40 | lite |
| ATOM | 1215 | C | ALA | 1134 | 55.551 | 22.259 | -12.740 | 1.00 | 6.63 | lite |
| ATOM | 1216 | O | ALA | 1134 | 56.600 | 21.805 | -13.131 | 1.00 | 8.40 | lite |
| ATOM | 1217 | N | SER | 1135 | 55.619 | 23.415 | -12.098 | 1.00 | 7.23 | lite |
| ATOM | 1219 | CA | SER | 1135 | 56.902 | 24.035 | -11.737 | 1.00 | 7.23 | lite |
| ATOM | 1220 | CB | SER | 1135 | 56.951 | 25.554 | -11.834 | 1.00 | 12.31 | lite |
| ATOM | 1221 | OG | SER | 1135 | 56.279 | 26.152 | -12.955 | 1.00 | 12.31 | lite |
| ATOM | 1223 | C | SER | 1135 | 57.252 | 23.793 | -10.292 | 1.00 | 7.23 | lite |
| ATOM | 1224 | O | SER | 1135 | 56.515 | 24.116 | -9.375 | 1.00 | 12.31 | lite |
| ATOM | 1225 | N | VAL | 1136 | 58.323 | 23.152 | -9.945 | 1.00 | 7.64 | lite |

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| ATOM | 1227 | CA | VAL | 1136 | 58.769 | 23.032 | -8.546 | 1.00 | 7.64 | lite |
|------|------|-----|-----|------|--------|--------|--------|------|-------|------|
| ATOM | 1228 | CB | VAL | 1136 | 59.584 | 21.743 | -8.424 | 1.00 | 2.00 | lite |
| ATOM | 1229 | CG1 | VAL | 1136 | 60.072 | 21.532 | -7.039 | 1.00 | 2.00 | lite |
| ATOM | 1230 | CG2 | VAL | 1136 | 58.697 | 20.595 | -8.866 | 1.00 | 2.00 | lite |
| ATOM | 1231 | C | VAL | 1136 | 59.599 | 24.282 | -8.278 | 1.00 | 7.64 | lite |
| ATOM | 1232 | O | VAL | 1136 | 60.231 | 24.781 | -9.221 | 1.00 | 2.00 | lite |
| ATOM | 1233 | N | VAL | 1137 | 59.660 | 24.910 | -7.097 | 1.00 | 5.89 | lite |
| ATOM | 1235 | CA | VAL | 1137 | 60.445 | 26.138 | -6.901 | 1.00 | 5.89 | lite |
| ATOM | 1236 | CB | VAL | 1137 | 59.611 | 27.439 | -6.734 | 1.00 | 7.71 | lite |
| ATOM | 1237 | CG1 | VAL | 1137 | 60.484 | 28.674 | -6.727 | 1.00 | 7.71 | lite |
| ATOM | 1238 | CG2 | VAL | 1137 | 58.684 | 27.597 | -7.906 | 1.00 | 5.89 | lite |
| ATOM | 1239 | C | VAL | 1137 | 61.268 | 26.034 | -5.652 | 1.00 | 7.71 | lite |
| ATOM | 1240 | O | VAL | 1137 | 60.894 | 25.355 | -4.716 | 1.00 | 8.64 | lite |
| ATOM | 1241 | N | CYS | 1138 | 62.398 | 26.736 | -5.644 | 1.00 | 8.64 | lite |
| ATOM | 1243 | CA | CYS | 1138 | 63.373 | 26.728 | -4.578 | 1.00 | 8.64 | lite |
| ATOM | 1244 | C | CYS | 1138 | 64.056 | 28.079 | -4.413 | 1.00 | 18.22 | lite |
| ATOM | 1245 | O | CYS | 1138 | 64.891 | 28.478 | -5.241 | 1.00 | 18.22 | lite |
| ATOM | 1246 | CB | CYS | 1138 | 64.409 | 25.630 | -4.873 | 1.00 | 18.22 | lite |
| ATOM | 1247 | SG | CYS | 1138 | 65.671 | 25.363 | -3.602 | 1.00 | 12.49 | lite |
| ATOM | 1248 | N | PHE | 1139 | 63.685 | 28.875 | -3.383 | 1.00 | 12.49 | lite |
| ATOM | 1250 | CA | PHE | 1139 | 64.315 | 30.176 | -3.100 | 1.00 | 12.49 | lite |
| ATOM | 1251 | CB | PHE | 1139 | 63.410 | 31.145 | -2.395 | 1.00 | 9.10 | lite |
| ATOM | 1252 | CG | PHE | 1139 | 62.119 | 31.496 | -3.123 | 1.00 | 9.10 | lite |
| ATOM | 1253 | CD1 | PHE | 1139 | 62.091 | 32.010 | -4.391 | 1.00 | 9.10 | lite |
| ATOM | 1254 | CD2 | PHE | 1139 | 60.908 | 31.294 | -2.498 | 1.00 | 9.10 | lite |
| ATOM | 1255 | CE1 | PHE | 1139 | 60.867 | 32.278 | -4.991 | 1.00 | 9.10 | lite |
| ATOM | 1256 | CE2 | PHE | 1139 | 59.687 | 31.567 | -3.109 | 1.00 | 9.10 | lite |
| ATOM | 1257 | CZ | PHE | 1139 | 59.655 | 32.073 | -4.365 | 1.00 | 9.10 | lite |
| ATOM | 1258 | C | PHE | 1139 | 65.497 | 29.946 | -2.174 | 1.00 | 12.49 | lite |
| ATOM | 1259 | O | PHE | 1139 | 65.512 | 29.182 | -1.231 | 1.00 | 9.10 | lite |
| ATOM | 1260 | N | LEU | 1140 | 66.600 | 30.527 | -2.563 | 1.00 | 10.76 | lite |
| ATOM | 1262 | CA | LEU | 1140 | 67.866 | 30.508 | -1.866 | 1.00 | 10.76 | lite |
| ATOM | 1263 | CB | LEU | 1140 | 68.981 | 30.192 | -2.790 | 1.00 | 4.84 | lite |
| ATOM | 1264 | CG | LEU | 1140 | 69.191 | 28.850 | -3.414 | 1.00 | 4.84 | lite |
| ATOM | 1265 | CD1 | LEU | 1140 | 69.523 | 27.975 | -2.256 | 1.00 | 4.84 | lite |
| ATOM | 1266 | CD2 | LEU | 1140 | 68.020 | 28.282 | -4.154 | 1.00 | 4.84 | lite |
| ATOM | 1267 | C | LEU | 1140 | 67.994 | 31.954 | -1.487 | 1.00 | 10.76 | lite |
| ATOM | 1268 | O | LEU | 1140 | 68.552 | 32.744 | -2.232 | 1.00 | 4.84 | lite |
| ATOM | 1269 | N | ASN | 1141 | 67.439 | 32.314 | -0.353 | 1.00 | 12.03 | lite |
| ATOM | 1271 | CA | ASN | 1141 | 67.401 | 33.678 | 0.127 | 1.00 | 12.03 | lite |
| ATOM | 1272 | CB | ASN | 1141 | 66.094 | 33.968 | 0.810 | 1.00 | 18.74 | lite |
| ATOM | 1273 | CG | ASN | 1141 | 64.900 | 34.273 | -0.074 | 1.00 | 18.74 | lite |
| ATOM | 1274 | OD1 | ASN | 1141 | 64.989 | 34.604 | -1.256 | 1.00 | 18.74 | lite |
| ATOM | 1275 | ND2 | ASN | 1141 | 63.704 | 34.267 | 0.477 | 1.00 | 18.74 | lite |
| ATOM | 1278 | C | ASN | 1141 | 68.454 | 34.164 | 1.102 | 1.00 | 12.03 | lite |
| ATOM | 1279 | O | ASN | 1141 | 68.887 | 33.407 | 1.964 | 1.00 | 18.74 | lite |
| ATOM | 1280 | N | ASN | 1142 | 68.855 | 35.437 | 1.005 | 1.00 | 14.88 | lite |
| ATOM | 1282 | CA | ASN | 1142 | 69.684 | 36.111 | 2.005 | 1.00 | 14.88 | lite |
| ATOM | 1283 | CB | ASN | 1142 | 68.821 | 36.195 | 3.259 | 1.00 | 23.34 | lite |
| ATOM | 1284 | CG | ASN | 1142 | 67.578 | 37.011 | 2.974 | 1.00 | 23.34 | lite |
| ATOM | 1285 | OD1 | ASN | 1142 | 66.492 | 36.523 | 2.680 | 1.00 | 23.34 | lite |
| ATOM | 1286 | ND2 | ASN | 1142 | 67.603 | 38.324 | 2.942 | 1.00 | 23.34 | lite |
| ATOM | 1289 | C | ASN | 1142 | 71.110 | 35.645 | 2.368 | 1.00 | 14.88 | lite |
| ATOM | 1290 | O | ASN | 1142 | 71.566 | 35.606 | 3.505 | 1.00 | 23.34 | lite |
| ATOM | 1291 | N | PHE | 1143 | 71.866 | 35.353 | 1.318 | 1.00 | 14.10 | lite |
| ATOM | 1293 | CA | PHE | 1143 | 73.236 | 34.925 | 1.403 | 1.00 | 14.10 | lite |
| ATOM | 1294 | CB | PHE | 1143 | 73.347 | 33.703 | 0.576 | 1.00 | 15.71 | lite |
| ATOM | 1295 | CG | PHE | 1143 | 73.134 | 33.756 | -0.951 | 1.00 | 15.71 | lite |
| ATOM | 1296 | CD1 | PHE | 1143 | 74.194 | 34.008 | -1.787 | 1.00 | 15.71 | lite |
| ATOM | 1297 | CD2 | PHE | 1143 | 71.915 | 33.441 | -1.500 | 1.00 | 15.71 | lite |
| ATOM | 1298 | CE1 | PHE | 1143 | 74.013 | 33.930 | -3.135 | 1.00 | 15.71 | lite |
| ATOM | 1299 | CE2 | PHE | 1143 | 71.758 | 33.367 | -2.848 | 1.00 | 15.71 | lite |
| ATOM | 1300 | CZ | PHE | 1143 | 72.814 | 33.612 | -3.671 | 1.00 | 15.71 | lite |
| ATOM | 1301 | C | PHE | 1143 | 74.348 | 35.899 | 0.996 | 1.00 | 14.10 | lite |
| ATOM | 1302 | O | PHE | 1143 | 74.170 | 36.899 | 0.291 | 1.00 | 15.71 | lite |
| ATOM | 1303 | N | TYR | 1144 | 75.568 | 35.598 | 1.390 | 1.00 | 18.03 | lite |
| ATOM | 1305 | CA | TYR | 1144 | 76.724 | 36.366 | 0.960 | 1.00 | 18.03 | lite |

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| ATOM | 1306 | CB | TYR | 1144 | 76.777 | 37.612 | 1.845 | 1.00 | 24.77 | lite |
|------|------|-----|------|------|--------|--------|--------|------|-------|------|
| ATOM | 1307 | CG | TYR | 1144 | 77.868 | 38.582 | 1.396 | 1.00 | 24.77 | lite |
| ATOM | 1308 | CD1 | TYR | 1144 | 79.198 | 38.254 | 1.512 | 1.00 | 24.77 | lite |
| ATOM | 1309 | CE1 | TYR | 1144 | 80.175 | 39.052 | 1.007 | 1.00 | 24.77 | lite |
| ATOM | 1310 | CD2 | TYR | 1144 | 77.517 | 39.755 | 0.765 | 1.00 | 24.77 | lite |
| ATOM | 1311 | CE2 | TYR | 1144 | 78.502 | 40.566 | 0.241 | 1.00 | 24.77 | lite |
| ATOM | 1312 | CZ | TYR | 1144 | 79.832 | 40.207 | 0.365 | 1.00 | 24.77 | lite |
| ATOM | 1313 | OH | TYR | 1144 | 80.821 | 41.025 | -0.206 | 1.00 | 24.77 | lite |
| ATOM | 1315 | C | TYR | 1144 | 77.948 | 35.429 | 1.106 | 1.00 | 18.03 | lite |
| ATOM | 1316 | O | TYR | 1144 | 77.953 | 34.540 | 1.988 | 1.00 | 24.77 | lite |
| ATOM | 1317 | N | CPR | 1145 | 78.945 | 35.404 | 0.219 | 1.00 | 9.08 | lite |
| ATOM | 1318 | CD | CPR | 1145 | 80.183 | 34.716 | 0.495 | 1.00 | 35.34 | lite |
| ATOM | 1319 | CA | CPR | 1145 | 79.123 | 36.155 | -1.013 | 1.00 | 9.08 | lite |
| ATOM | 1320 | CB | CPR | 1145 | 80.524 | 35.895 | -1.389 | 1.00 | 35.34 | lite |
| ATOM | 1321 | CG | CPR | 1145 | 81.208 | 35.705 | -0.074 | 1.00 | 35.34 | lite |
| ATOM | 1322 | C | CPR | 1145 | 78.197 | 35.872 | -2.175 | 1.00 | 9.08 | lite |
| ATOM | 1323 | O | CPR | 1145 | 77.545 | 34.850 | -2.148 | 1.00 | 35.34 | lite |
| ATOM | 1324 | N | LYS | 1146 | 78.070 | 36.635 | -3.245 | 1.00 | 30.25 | lite |
| ATOM | 1326 | CA | LYS | 1146 | 77.079 | 36.335 | -4.291 | 1.00 | 30.25 | lite |
| ATOM | 1327 | CB | LYS | 1146 | 77.296 | 37.365 | -5.373 | 1.00 | 38.03 | lite |
| ATOM | 1328 | CG | LYS | 1146 | 76.942 | 37.106 | -6.805 | 1.00 | 38.03 | lite |
| ATOM | 1329 | CD | LYS | 1146 | 78.063 | 37.806 | -7.585 | 1.00 | 38.03 | lite |
| ATOM | 1330 | CE | LYS | 1146 | 78.357 | 39.324 | -7.322 | 1.00 | 38.03 | lite |
| ATOM | 1331 | NZ | LYS | 1146 | 79.081 | 39.624 | -6.073 | 1.00 | 38.03 | lite |
| ATOM | 1335 | C | LYS | 1146 | 77.007 | 34.943 | -4.911 | 1.00 | 30.25 | lite |
| ATOM | 1336 | O | LYS | 1146 | 75.970 | 34.345 | -5.209 | 1.00 | 38.03 | lite |
| ATOM | 1337 | N | ASP | 1147 | 78.152 | 34.362 | -5.114 | 1.00 | 15.19 | lite |
| ATOM | 1339 | CA | ASP | 1147 | 78.084 | 33.119 | -5.812 | 1.00 | 15.19 | lite |
| ATOM | 1340 | CB | ASP | 1147 | 79.283 | 32.919 | -6.653 | 1.00 | 30.84 | lite |
| ATOM | 1341 | CG | ASP | 1147 | 80.621 | 33.051 | -5.997 | 1.00 | 30.84 | lite |
| ATOM | 1342 | OD1 | ASP | 1147 | 81.569 | 32.848 | -6.782 | 1.00 | 30.84 | lite |
| ATOM | 1343 | OD2 | ASP | 1147 | 80.720 | 33.338 | -4.778 | 1.00 | 30.84 | lite |
| ATOM | 1344 | C | ASP | 1147 | 77.892 | 31.903 | -4.998 | 1.00 | 15.19 | lite |
| ATOM | 1345 | O | ASP | 1147 | 78.534 | 31.620 | -3.990 | 1.00 | 30.84 | lite |
| ATOM | 1346 | N | ILE | 1148 | 76.782 | 31.413 | -5.512 | 1.00 | 15.99 | lite |
| ATOM | 1348 | CA | ILE | 1148 | 76.237 | 30.154 | -5.132 | 1.00 | 15.99 | lite |
| ATOM | 1349 | CB | ILE | 1148 | 74.884 | 30.582 | -4.457 | 1.00 | 14.63 | lite |
| ATOM | 1350 | CG2 | ILE | 1148 | 73.698 | 30.709 | -5.417 | 1.00 | 14.63 | lite |
| ATOM | 1351 | CG1 | ILE | 1148 | 74.574 | 29.530 | -3.427 | 1.00 | 14.63 | lite |
| ATOM | 1352 | CD1 | ILE | 1148 | 73.317 | 29.820 | -2.600 | 1.00 | 14.63 | lite |
| ATOM | 1353 | C | ILE | 1148 | 76.190 | 29.260 | -6.390 | 1.00 | 15.99 | lite |
| ATOM | 1354 | O | ILE | 1148 | 76.438 | 29.774 | -7.491 | 1.00 | 14.63 | lite |
| ATOM | 1355 | N | ASN | 1149 | 75.900 | 27.942 | -6.253 | 1.00 | 10.88 | lite |
| ATOM | 1357 | CA | ASN | 1149 | 75.757 | 26.951 | -7.334 | 1.00 | 10.88 | lite |
| ATOM | 1358 | CB | ASN | 1149 | 76.978 | 26.042 | -7.368 | 1.00 | 37.20 | lite |
| ATOM | 1359 | CG | ASN | 1149 | 76.816 | 24.777 | -8.237 | 1.00 | 37.20 | lite |
| ATOM | 1360 | OD1 | ASN | 1149 | 77.242 | 24.728 | -9.389 | 1.00 | 37.20 | lite |
| ATOM | 1361 | ND2 | ASN | 1149 | 76.162 | 23.692 | -7.810 | 1.00 | 37.20 | lite |
| ATOM | 1364 | C | ASN | 1149 | 74.516 | 26.126 | -7.014 | 1.00 | 10.88 | lite |
| ATOM | 1365 | O | ASN | 1149 | 74.495 | 25.483 | -5.961 | 1.00 | 37.20 | lite |
| ATOM | 1366 | N | VAL | 1150 | 73.420 | 26.059 | -7.768 | 1.00 | 18.02 | lite |
| ATOM | 1368 | CA | VAL | 1150 | 72.276 | 25.256 | -7.312 | 1.00 | 18.02 | lite |
| ATOM | 1369 | CB | VAL | 1150 | 70.971 | 26.056 | -7.420 | 1.00 | 5.55 | lite |
| ATOM | 1370 | CG1 | VAL | 1150 | 69.822 | 25.468 | -6.629 | 1.00 | 5.55 | lite |
| ATOM | 1371 | CG2 | VAL | 1150 | 71.243 | 27.403 | -6.846 | 1.00 | 5.55 | lite |
| ATOM | 1372 | C | VAL | 1150 | 72.207 | 24.032 | -8.204 | 1.00 | 18.02 | lite |
| ATOM | 1373 | O | VAL | 1150 | 72.455 | 24.094 | -9.411 | 1.00 | 5.55 | lite |
| ATOM | 1374 | N | LYS | 1151 | 71.960 | 22.882 | -7.625 | 1.00 | 2.00 | lite |
| ATOM | 1376 | CA | LYS | 1151 | 71.819 | 21.702 | -8.426 | 1.00 | 2.00 | lite |
| ATOM | 1377 | CB | LYS | 1151 | 72.965 | 20.763 | -8.141 | 1.00 | 24.25 | lite |
| ATOM | 1378 | CG | LYS | 1151 | 73.009 | 19.452 | -8.931 | 1.00 | 24.25 | lite |
| ATOM | 1379 | CD | LYS | 1151 | 74.407 | 18.930 | -9.205 | 1.00 | 24.25 | lite |
| ATOM | 1380 | CE | LYS | 1151 | 75.272 | 19.824 | -10.110 | 1.00 | 24.25 | lite |
| ATOM | 1381 | NZ | LYS | 1151 | 76.061 | 20.815 | -9.370 | 1.00 | 24.25 | lite |
| ATOM | 1385 | C | LYS | 1151 | 70.536 | 21.032 | -8.093 | 1.00 | 2.00 | lite |
| ATOM | 1386 | O | LYS | 1151 | 70.197 | 20.977 | -6.926 | 1.00 | 24.25 | lite |
| ATOM | 1387 | N | TRP | 1152 | 69.843 | 20.427 | -9.037 | 1.00 | 2.00 | lite |

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| ATOM | 1389 | CA | TRP | 1152 | 68.565 | 19.784 | -8.760 | 1.00 | 2.00 | lite |
|------|------|-----|-----|------|--------|--------|--------|------|------|------|
| ATOM | 1390 | CB | TRP | 1152 | 67.484 | 20.192 | -9.734 | 1.00 | 2.00 | lite |
| ATOM | 1391 | CG | TRP | 1152 | 66.768 | 21.517 | -9.497 | 1.00 | 2.00 | lite |
| ATOM | 1392 | CD2 | TRP | 1152 | 65.588 | 21.690 | -8.823 | 1.00 | 2.00 | lite |
| ATOM | 1393 | CE2 | TRP | 1152 | 65.379 | 23.036 | -8.928 | 1.00 | 2.00 | lite |
| ATOM | 1394 | CE3 | TRP | 1152 | 64.676 | 20.908 | -8.161 | 1.00 | 2.00 | lite |
| ATOM | 1395 | CD1 | TRP | 1152 | 67.263 | 22.680 | -9.981 | 1.00 | 2.00 | lite |
| ATOM | 1396 | NE1 | TRP | 1152 | 66.394 | 23.578 | -9.610 | 1.00 | 2.00 | lite |
| ATOM | 1398 | CZ2 | TRP | 1152 | 64.274 | 23.630 | -8.362 | 1.00 | 2.00 | lite |
| ATOM | 1399 | CZ3 | TRP | 1152 | 63.569 | 21.477 | -7.594 | 1.00 | 2.00 | lite |
| ATOM | 1400 | CH2 | TRP | 1152 | 63.379 | 22.826 | -7.708 | 1.00 | 2.00 | lite |
| ATOM | 1401 | C | TRP | 1152 | 68.625 | 18.310 | -8.853 | 1.00 | 2.00 | lite |
| ATOM | 1402 | O | TRP | 1152 | 69.131 | 17.821 | -9.830 | 1.00 | 2.00 | lite |
| ATOM | 1403 | N | LYS | 1153 | 68.088 | 17.550 | -7.955 | 1.00 | 9.35 | lite |
| ATOM | 1405 | CA | LYS | 1153 | 68.116 | 16.101 | -8.100 | 1.00 | 9.35 | lite |
| ATOM | 1406 | CB | LYS | 1153 | 68.914 | 15.530 | -6.964 | 1.00 | 28.16 | lite |
| ATOM | 1407 | CG | LYS | 1153 | 70.314 | 15.354 | -7.426 | 1.00 | 28.16 | lite |
| ATOM | 1408 | CD | LYS | 1153 | 71.187 | 15.807 | -6.290 | 1.00 | 28.16 | lite |
| ATOM | 1409 | CE | LYS | 1153 | 72.639 | 15.681 | -6.682 | 1.00 | 28.16 | lite |
| ATOM | 1410 | NZ | LYS | 1153 | 72.922 | 16.506 | -7.851 | 1.00 | 28.16 | lite |
| ATOM | 1414 | C | LYS | 1153 | 66.784 | 15.369 | -8.183 | 1.00 | 9.35 | lite |
| ATOM | 1415 | O | LYS | 1153 | 66.220 | 15.048 | -7.143 | 1.00 | 28.16 | lite |
| ATOM | 1416 | N | ILE | 1154 | 66.159 | 15.092 | -9.332 | 1.00 | 20.38 | lite |
| ATOM | 1418 | CA | ILE | 1154 | 64.966 | 14.268 | -9.366 | 1.00 | 20.38 | lite |
| ATOM | 1419 | CB | ILE | 1154 | 64.381 | 13.986 | -10.670 | 1.00 | 21.10 | lite |
| ATOM | 1420 | CG2 | ILE | 1154 | 63.062 | 13.408 | -10.294 | 1.00 | 21.10 | lite |
| ATOM | 1421 | CG1 | ILE | 1154 | 64.248 | 15.162 | -11.597 | 1.00 | 21.10 | lite |
| ATOM | 1422 | CD1 | ILE | 1154 | 63.082 | 16.097 | -11.260 | 1.00 | 21.10 | lite |
| ATOM | 1423 | C | ILE | 1154 | 65.511 | 12.906 | -9.007 | 1.00 | 20.38 | lite |
| ATOM | 1424 | O | ILE | 1154 | 66.333 | 12.338 | -9.729 | 1.00 | 21.10 | lite |
| ATOM | 1425 | N | ASP | 1155 | 65.027 | 12.439 | -7.860 | 1.00 | 18.01 | lite |
| ATOM | 1427 | CA | ASP | 1155 | 65.450 | 11.166 | -7.296 | 1.00 | 18.01 | lite |
| ATOM | 1428 | CB | ASP | 1155 | 64.688 | 10.012 | -7.973 | 1.00 | 14.44 | lite |
| ATOM | 1429 | CG | ASP | 1155 | 63.227 | 9.780 | -7.658 | 1.00 | 14.44 | lite |
| ATOM | 1430 | OD1 | ASP | 1155 | 62.490 | 9.542 | -8.612 | 1.00 | 14.44 | lite |
| ATOM | 1431 | OD2 | ASP | 1155 | 62.856 | 9.793 | -6.481 | 1.00 | 14.44 | lite |
| ATOM | 1432 | C | ASP | 1155 | 66.948 | 10.807 | -7.336 | 1.00 | 18.01 | lite |
| ATOM | 1433 | O | ASP | 1155 | 67.420 | 9.926 | -8.053 | 1.00 | 14.44 | lite |
| ATOM | 1434 | N | GLY | 1156 | 67.782 | 11.470 | -6.592 | 1.00 | 8.00 | lite |
| ATOM | 1436 | CA | GLY | 1156 | 69.158 | 11.045 | -6.583 | 1.00 | 8.00 | lite |
| ATOM | 1437 | C | GLY | 1156 | 69.978 | 11.576 | -7.734 | 1.00 | 8.00 | lite |
| ATOM | 1438 | O | GLY | 1156 | 71.135 | 11.909 | -7.487 | 1.00 | 23.99 | lite |
| ATOM | 1439 | N | SER | 1157 | 69.506 | 11.711 | -8.978 | 1.00 | 30.29 | lite |
| ATOM | 1441 | CA | SER | 1157 | 70.343 | 12.276 | -10.071 | 1.00 | 30.29 | lite |
| ATOM | 1442 | CB | SER | 1157 | 70.388 | 11.301 | -11.253 | 1.00 | 13.58 | lite |
| ATOM | 1443 | OG | SER | 1157 | 69.211 | 10.610 | -11.586 | 1.00 | 13.58 | lite |
| ATOM | 1445 | C | SER | 1157 | 70.118 | 13.670 | -10.696 | 1.00 | 30.29 | lite |
| ATOM | 1446 | O | SER | 1157 | 69.029 | 14.234 | -10.662 | 1.00 | 13.58 | lite |
| ATOM | 1447 | N | GLU | 1158 | 71.133 | 14.344 | -11.246 | 1.00 | 13.57 | lite |
| ATOM | 1449 | CA | GLU | 1158 | 70.956 | 15.648 | -11.924 | 1.00 | 13.57 | lite |
| ATOM | 1450 | CB | GLU | 1158 | 72.202 | 16.046 | -12.667 | 1.00 | 18.72 | lite |
| ATOM | 1451 | CG | GLU | 1158 | 72.972 | 17.164 | -12.000 | 1.00 | 18.72 | lite |
| ATOM | 1452 | CD | GLU | 1158 | 74.088 | 17.776 | -12.869 | 1.00 | 18.72 | lite |
| ATOM | 1453 | OE1 | GLU | 1158 | 74.007 | 18.953 | -13.231 | 1.00 | 18.72 | lite |
| ATOM | 1454 | OE2 | GLU | 1158 | 75.047 | 17.074 | -13.197 | 1.00 | 13.57 | lite |
| ATOM | 1455 | C | GLU | 1158 | 69.809 | 15.846 | -12.933 | 1.00 | 18.72 | lite |
| ATOM | 1456 | O | GLU | 1158 | 69.355 | 14.968 | -13.679 | 1.00 | 18.72 | lite |
| ATOM | 1457 | N | ARG | 1159 | 69.263 | 17.041 | -12.808 | 1.00 | 7.20 | lite |
| ATOM | 1459 | CA | ARG | 1159 | 68.266 | 17.499 | -13.737 | 1.00 | 7.20 | lite |
| ATOM | 1460 | CB | ARG | 1159 | 66.863 | 17.479 | -13.136 | 1.00 | 3.90 | lite |
| ATOM | 1461 | CG | ARG | 1159 | 65.734 | 18.139 | -13.931 | 1.00 | 3.90 | lite |
| ATOM | 1462 | CD | ARG | 1159 | 65.473 | 17.649 | -15.336 | 1.00 | 3.90 | lite |
| ATOM | 1463 | NE | ARG | 1159 | 64.590 | 16.527 | -15.422 | 1.00 | 3.90 | lite |
| ATOM | 1465 | CZ | ARG | 1159 | 63.599 | 16.471 | -16.299 | 1.00 | 3.90 | lite |
| ATOM | 1466 | NH1 | ARG | 1159 | 63.310 | 17.431 | -17.156 | 1.00 | 3.90 | lite |
| ATOM | 1469 | NH2 | ARG | 1159 | 62.888 | 15.384 | -16.384 | 1.00 | 3.90 | lite |
| ATOM | 1472 | C | ARG | 1159 | 68.660 | 18.907 | -14.030 | 1.00 | 7.20 | lite |

| ATOM | 1473 | O | ARG | 1159 | 68.893 | 19.723 | -13.149 | 1.00 | 3.90 | lite |
|------|------|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 1474 | N | GLN | 1160 | 68.926 | 19.045 | -15.298 | 1.00 | 2.00 | lite |
| ATOM | 1476 | CA | GLN | 1160 | 69.227 | 20.294 | -15.917 | 1.00 | 2.00 | lite |
| ATOM | 1477 | CB | GLN | 1160 | 70.589 | 20.161 | -16.565 | 1.00 | 35.79 | lite |
| ATOM | 1478 | CG | GLN | 1160 | 71.425 | 21.286 | -17.203 | 1.00 | 35.79 | lite |
| ATOM | 1479 | CD | GLN | 1160 | 71.183 | 21.698 | -18.682 | 1.00 | 35.79 | lite |
| ATOM | 1480 | OE1 | GLN | 1160 | 70.887 | 20.903 | -19.608 | 1.00 | 35.79 | lite |
| ATOM | 1481 | NE2 | GLN | 1160 | 71.309 | 22.992 | -19.025 | 1.00 | 35.79 | lite |
| ATOM | 1484 | C | GLN | 1160 | 68.109 | 20.620 | -16.921 | 1.00 | 2.00 | lite |
| ATOM | 1485 | O | GLN | 1160 | 68.102 | 21.809 | -17.212 | 1.00 | 35.79 | lite |
| ATOM | 1486 | N | ASN | 1161 | 67.158 | 19.876 | -17.562 | 1.00 | 4.82 | lite |
| ATOM | 1488 | CA | ASN | 1161 | 66.129 | 20.674 | -18.245 | 1.00 | 4.82 | lite |
| ATOM | 1489 | CB | ASN | 1161 | 65.540 | 20.177 | -19.662 | 1.00 | 9.79 | lite |
| ATOM | 1490 | CG | ASN | 1161 | 65.042 | 18.783 | -19.840 | 1.00 | 9.79 | lite |
| ATOM | 1491 | OD1 | ASN | 1161 | 65.701 | 17.928 | -19.363 | 1.00 | 9.79 | lite |
| ATOM | 1492 | ND2 | ASN | 1161 | 63.994 | 18.337 | -20.446 | 1.00 | 9.79 | lite |
| ATOM | 1495 | C | ASN | 1161 | 64.919 | 20.909 | -17.399 | 1.00 | 4.82 | lite |
| ATOM | 1496 | O | ASN | 1161 | 64.496 | 20.136 | -16.556 | 1.00 | 9.79 | lite |
| ATOM | 1497 | N | GLY | 1162 | 64.435 | 22.122 | -17.631 | 1.00 | 2.00 | lite |
| ATOM | 1499 | CA | GLY | 1162 | 63.297 | 22.687 | -16.949 | 1.00 | 2.00 | lite |
| ATOM | 1500 | C | GLY | 1162 | 63.745 | 23.782 | -16.021 | 1.00 | 2.00 | lite |
| ATOM | 1501 | O | GLY | 1162 | 62.947 | 24.564 | -15.544 | 1.00 | 27.69 | lite |
| ATOM | 1502 | N | VAL | 1163 | 65.036 | 23.905 | -15.746 | 1.00 | 19.59 | lite |
| ATOM | 1504 | CA | VAL | 1163 | 65.567 | 24.911 | -14.831 | 1.00 | 19.59 | lite |
| ATOM | 1505 | CB | VAL | 1163 | 66.895 | 24.274 | -14.254 | 1.00 | 8.56 | lite |
| ATOM | 1506 | CG1 | VAL | 1163 | 67.628 | 25.119 | -13.229 | 1.00 | 8.56 | lite |
| ATOM | 1507 | CG2 | VAL | 1163 | 66.456 | 22.977 | -13.566 | 1.00 | 8.56 | lite |
| ATOM | 1508 | C | VAL | 1163 | 65.753 | 26.341 | -15.366 | 1.00 | 19.59 | lite |
| ATOM | 1509 | O | VAL | 1163 | 66.485 | 26.619 | -16.316 | 1.00 | 8.56 | lite |
| ATOM | 1510 | N | LEU | 1164 | 64.971 | 27.224 | -14.761 | 1.00 | 2.00 | lite |
| ATOM | 1512 | CA | LEU | 1164 | 65.132 | 28.655 | -14.882 | 1.00 | 2.00 | lite |
| ATOM | 1513 | CB | LEU | 1164 | 63.857 | 29.404 | -15.000 | 1.00 | 26.79 | lite |
| ATOM | 1514 | CG | LEU | 1164 | 63.006 | 29.202 | -16.233 | 1.00 | 26.79 | lite |
| ATOM | 1515 | CD1 | LEU | 1164 | 61.514 | 28.881 | -15.904 | 1.00 | 26.79 | lite |
| ATOM | 1516 | CD2 | LEU | 1164 | 63.231 | 30.472 | -17.047 | 1.00 | 26.79 | lite |
| ATOM | 1517 | C | LEU | 1164 | 65.764 | 29.246 | -13.623 | 1.00 | 2.00 | lite |
| ATOM | 1518 | O | LEU | 1164 | 65.184 | 29.095 | -12.552 | 1.00 | 26.79 | lite |
| ATOM | 1519 | N | ASN | 1165 | 66.918 | 29.927 | -13.591 | 1.00 | 8.15 | lite |
| ATOM | 1521 | CA | ASN | 1165 | 67.449 | 30.468 | -12.354 | 1.00 | 8.15 | lite |
| ATOM | 1522 | CB | ASN | 1165 | 68.875 | 29.984 | -12.137 | 1.00 | 8.50 | lite |
| ATOM | 1523 | CG | ASN | 1165 | 69.022 | 28.519 | -11.708 | 1.00 | 8.50 | lite |
| ATOM | 1524 | OD1 | ASN | 1165 | 70.081 | 27.947 | -11.682 | 1.00 | 8.50 | lite |
| ATOM | 1525 | ND2 | ASN | 1165 | 68.056 | 27.711 | -11.372 | 1.00 | 8.50 | lite |
| ATOM | 1528 | C | ASN | 1165 | 67.449 | 31.968 | -12.388 | 1.00 | 8.15 | lite |
| ATOM | 1529 | O | ASN | 1165 | 67.705 | 32.474 | -13.486 | 1.00 | 8.50 | lite |
| ATOM | 1530 | N | SER | 1166 | 67.231 | 32.692 | -11.282 | 1.00 | 2.00 | lite |
| ATOM | 1532 | CA | SER | 1166 | 67.305 | 34.128 | -11.354 | 1.00 | 2.00 | lite |
| ATOM | 1533 | CB | SER | 1166 | 65.964 | 34.737 | -11.505 | 1.00 | 10.91 | lite |
| ATOM | 1534 | OG | SER | 1166 | 66.250 | 36.080 | -11.841 | 1.00 | 10.91 | lite |
| ATOM | 1536 | C | SER | 1166 | 67.955 | 34.810 | -10.182 | 1.00 | 2.00 | lite |
| ATOM | 1537 | O | SER | 1166 | 67.788 | 34.417 | -9.057 | 1.00 | 10.91 | lite |
| ATOM | 1538 | N | TRP | 1167 | 68.752 | 35.830 | -10.328 | 1.00 | 5.07 | lite |
| ATOM | 1540 | CA | TRP | 1167 | 69.406 | 36.425 | -9.204 | 1.00 | 5.07 | lite |
| ATOM | 1541 | CB | TRP | 1167 | 70.900 | 36.408 | -9.385 | 1.00 | 41.01 | lite |
| ATOM | 1542 | CG | TRP | 1167 | 71.565 | 35.059 | -9.752 | 1.00 | 41.01 | lite |
| ATOM | 1543 | CD2 | TRP | 1167 | 72.515 | 34.430 | -8.987 | 1.00 | 41.01 | lite |
| ATOM | 1544 | CE2 | TRP | 1167 | 72.773 | 33.278 | -9.744 | 1.00 | 41.01 | lite |
| ATOM | 1545 | CE3 | TRP | 1167 | 73.172 | 34.676 | -7.791 | 1.00 | 41.01 | lite |
| ATOM | 1546 | CD1 | TRP | 1167 | 71.288 | 34.327 | -10.911 | 1.00 | 41.01 | lite |
| ATOM | 1547 | NE1 | TRP | 1167 | 72.033 | 33.245 | -10.877 | 1.00 | 41.01 | lite |
| ATOM | 1549 | CZ2 | TRP | 1167 | 73.703 | 32.329 | -9.326 | 1.00 | 41.01 | lite |
| ATOM | 1550 | CZ3 | TRP | 1167 | 74.107 | 33.722 | -7.383 | 1.00 | 41.01 | lite |
| ATOM | 1551 | CH2 | TRP | 1167 | 74.372 | 32.567 | -8.137 | 1.00 | 41.01 | lite |
| ATOM | 1552 | C | TRP | 1167 | 68.974 | 37.862 | -8.999 | 1.00 | 5.07 | lite |
| ATOM | 1553 | O | TRP | 1167 | 68.759 | 38.674 | -9.896 | 1.00 | 41.01 | lite |
| ATOM | 1554 | N | THR | 1168 | 68.708 | 38.200 | -7.754 | 1.00 | 15.93 | lite |
| ATOM | 1556 | CA | THR | 1168 | 68.453 | 39.605 | -7.445 | 1.00 | 15.93 | lite |

| ATOM | 1557 | CB | THR | 1168 | 67.825 | 39.901 | -6.075 | 1.00 | 12.04 | lite |
|------|------|----|----|------|--------|--------|--------|------|-------|------|
| ATOM | 1558 | OG1 | THR | 1168 | 68.675 | 39.324 | -5.106 | 1.00 | 12.04 | lite |
| ATOM | 1560 | CG2 | THR | 1168 | 66.419 | 39.372 | -5.928 | 1.00 | 12.04 | lite |
| ATOM | 1561 | C | THR | 1168 | 69.786 | 40.328 | -7.374 | 1.00 | 15.93 | lite |
| ATOM | 1562 | O | THR | 1168 | 70.842 | 39.725 | -7.198 | 1.00 | 12.04 | lite |
| ATOM | 1563 | N | ASP | 1169 | 69.743 | 41.629 | -7.568 | 1.00 | 11.77 | lite |
| ATOM | 1565 | CA | ASP | 1169 | 70.874 | 42.479 | -7.244 | 1.00 | 11.77 | lite |
| ATOM | 1566 | CB | ASP | 1169 | 70.621 | 43.927 | -7.569 | 1.00 | 32.89 | lite |
| ATOM | 1567 | CG | ASP | 1169 | 69.938 | 44.141 | -8.919 | 1.00 | 32.89 | lite |
| ATOM | 1568 | OD1 | ASP | 1169 | 70.599 | 44.737 | -9.792 | 1.00 | 32.89 | lite |
| ATOM | 1569 | OD2 | ASP | 1169 | 68.750 | 43.738 | -9.065 | 1.00 | 32.89 | lite |
| ATOM | 1570 | C | ASP | 1169 | 71.141 | 42.468 | -5.725 | 1.00 | 11.77 | lite |
| ATOM | 1571 | O | ASP | 1169 | 70.345 | 41.971 | -4.922 | 1.00 | 32.89 | lite |
| ATOM | 1572 | N | GLN | 1170 | 72.249 | 43.081 | -5.293 | 1.00 | 26.71 | lite |
| ATOM | 1574 | CA | GLN | 1170 | 72.528 | 43.270 | -3.855 | 1.00 | 26.71 | lite |
| ATOM | 1575 | CB | GLN | 1170 | 73.926 | 43.989 | -3.679 | 1.00 | 19.88 | lite |
| ATOM | 1576 | CG | GLN | 1170 | 74.325 | 44.479 | -2.299 | 1.00 | 19.88 | lite |
| ATOM | 1577 | CD | GLN | 1170 | 75.744 | 44.178 | -1.855 | 1.00 | 19.88 | lite |
| ATOM | 1578 | OE1 | GLN | 1170 | 76.674 | 44.905 | -2.152 | 1.00 | 19.88 | lite |
| ATOM | 1579 | NE2 | GLN | 1170 | 76.099 | 43.147 | -1.144 | 1.00 | 19.88 | lite |
| ATOM | 1582 | C | GLN | 1170 | 71.416 | 44.070 | -3.148 | 1.00 | 26.71 | lite |
| ATOM | 1583 | O | GLN | 1170 | 70.923 | 45.063 | -3.684 | 1.00 | 19.88 | lite |
| ATOM | 1584 | N | ASP | 1171 | 70.987 | 43.650 | -1.955 | 1.00 | 13.75 | lite |
| ATOM | 1586 | CA | ASP | 1171 | 69.952 | 44.321 | -1.163 | 1.00 | 13.75 | lite |
| ATOM | 1587 | CB | ASP | 1171 | 69.523 | 43.299 | -0.141 | 1.00 | 28.59 | lite |
| ATOM | 1588 | CG | ASP | 1171 | 68.423 | 43.702 | 0.795 | 1.00 | 28.59 | lite |
| ATOM | 1589 | OD1 | ASP | 1171 | 68.735 | 44.459 | 1.719 | 1.00 | 28.59 | lite |
| ATOM | 1590 | OD2 | ASP | 1171 | 67.287 | 43.241 | 0.621 | 1.00 | 28.59 | lite |
| ATOM | 1591 | C | ASP | 1171 | 70.327 | 45.666 | -0.515 | 1.00 | 13.75 | lite |
| ATOM | 1592 | O | ASP | 1171 | 71.462 | 45.892 | -0.078 | 1.00 | 28.59 | lite |
| ATOM | 1593 | N | SER | 1172 | 69.392 | 46.584 | -0.288 | 1.00 | 38.46 | lite |
| ATOM | 1595 | CA | SER | 1172 | 69.786 | 47.952 | 0.197 | 1.00 | 38.46 | lite |
| ATOM | 1596 | CB | SER | 1172 | 68.767 | 49.091 | -0.231 | 1.00 | 60.17 | lite |
| ATOM | 1597 | OG | SER | 1172 | 67.444 | 48.992 | 0.396 | 1.00 | 60.17 | lite |
| ATOM | 1599 | C | SER | 1172 | 69.983 | 48.211 | 1.685 | 1.00 | 38.46 | lite |
| ATOM | 1600 | O | SER | 1172 | 70.315 | 49.323 | 2.134 | 1.00 | 60.17 | lite |
| ATOM | 1601 | N | LYS | 1173 | 69.494 | 47.169 | 2.393 | 1.00 | 35.69 | lite |
| ATOM | 1603 | CA | LYS | 1173 | 69.513 | 47.122 | 3.872 | 1.00 | 35.69 | lite |
| ATOM | 1604 | CB | LYS | 1173 | 68.224 | 46.572 | 4.461 | 1.00 | 34.48 | lite |
| ATOM | 1605 | CG | LYS | 1173 | 66.961 | 47.190 | 3.840 | 1.00 | 34.48 | lite |
| ATOM | 1606 | CD | LYS | 1173 | 66.789 | 48.715 | 3.843 | 1.00 | 34.48 | lite |
| ATOM | 1607 | CE | LYS | 1173 | 66.048 | 49.216 | 5.092 | 1.00 | 34.48 | lite |
| ATOM | 1608 | NZ | LYS | 1173 | 65.827 | 50.672 | 5.046 | 1.00 | 34.48 | lite |
| ATOM | 1612 | C | LYS | 1173 | 70.631 | 46.245 | 4.367 | 1.00 | 35.69 | lite |
| ATOM | 1613 | O | LYS | 1173 | 71.709 | 46.787 | 4.648 | 1.00 | 34.48 | lite |
| ATOM | 1614 | N | ASP | 1174 | 70.447 | 44.903 | 4.349 | 1.00 | 15.60 | lite |
| ATOM | 1616 | CA | ASP | 1174 | 71.523 | 44.007 | 4.786 | 1.00 | 15.60 | lite |
| ATOM | 1617 | CB | ASP | 1174 | 70.954 | 42.702 | 5.330 | 1.00 | 18.24 | lite |
| ATOM | 1618 | CG | ASP | 1174 | 69.989 | 41.895 | 4.450 | 1.00 | 18.24 | lite |
| ATOM | 1619 | OD1 | ASP | 1174 | 69.982 | 42.027 | 3.230 | 1.00 | 18.24 | lite |
| ATOM | 1620 | OD2 | ASP | 1174 | 69.208 | 41.120 | 5.002 | 1.00 | 18.24 | lite |
| ATOM | 1621 | C | ASP | 1174 | 72.609 | 43.640 | 3.777 | 1.00 | 15.60 | lite |
| ATOM | 1622 | O | ASP | 1174 | 73.483 | 42.845 | 4.088 | 1.00 | 18.24 | lite |
| ATOM | 1623 | N | SER | 1175 | 72.592 | 44.166 | 2.551 | 1.00 | 9.91 | lite |
| ATOM | 1625 | CA | SER | 1175 | 73.713 | 43.994 | 1.607 | 1.00 | 9.91 | lite |
| ATOM | 1626 | CB | SER | 1175 | 74.994 | 44.552 | 2.196 | 1.00 | 25.82 | lite |
| ATOM | 1627 | OG | SER | 1175 | 74.679 | 45.814 | 2.773 | 1.00 | 25.82 | lite |
| ATOM | 1629 | C | SER | 1175 | 73.980 | 42.567 | 1.214 | 1.00 | 9.91 | lite |
| ATOM | 1630 | O | SER | 1175 | 75.085 | 42.091 | 0.981 | 1.00 | 25.82 | lite |
| ATOM | 1631 | N | THR | 1176 | 72.840 | 41.926 | 1.076 | 1.00 | 12.88 | lite |
| ATOM | 1633 | CA | THR | 1176 | 72.759 | 40.518 | 0.768 | 1.00 | 12.88 | lite |
| ATOM | 1634 | CB | THR | 1176 | 71.846 | 39.970 | 1.786 | 1.00 | 12.46 | lite |
| ATOM | 1635 | OG1 | THR | 1176 | 72.505 | 38.800 | 2.136 | 1.00 | 12.46 | lite |
| ATOM | 1637 | CG2 | THR | 1176 | 70.380 | 39.766 | 1.360 | 1.00 | 12.46 | lite |
| ATOM | 1638 | C | THR | 1176 | 72.329 | 40.090 | -0.630 | 1.00 | 12.88 | lite |
| ATOM | 1639 | O | THR | 1176 | 71.887 | 40.925 | -1.403 | 1.00 | 12.46 | lite |
| ATOM | 1640 | N | TYR | 1177 | 72.467 | 38.841 | -1.030 | 1.00 | 7.59 | lite |

| ATOM | 1642 | CA | TYR | 1177 | 71.924 | 38.407 | -2.294 | 1.00 | 7.59 | lite |
|------|------|------|-----|------|--------|--------|--------|------|-------|------|
| ATOM | 1643 | CB | TYR | 1177 | 73.060 | 37.941 | -3.172 | 1.00 | 14.48 | lite |
| ATOM | 1644 | CG | TYR | 1177 | 74.151 | 38.955 | -3.423 | 1.00 | 14.48 | lite |
| ATOM | 1645 | CD1 | TYR | 1177 | 74.110 | 39.757 | -4.549 | 1.00 | 14.48 | lite |
| ATOM | 1646 | CE1 | TYR | 1177 | 75.115 | 40.668 | -4.833 | 1.00 | 14.48 | lite |
| ATOM | 1647 | CD2 | TYR | 1177 | 75.202 | 39.059 | -2.551 | 1.00 | 14.48 | lite |
| ATOM | 1648 | CE2 | TYR | 1177 | 76.213 | 39.970 | -2.813 | 1.00 | 14.48 | lite |
| ATOM | 1649 | CZ | TYR | 1177 | 76.174 | 40.766 | -3.958 | 1.00 | 14.48 | lite |
| ATOM | 1650 | OH | TYR | 1177 | 77.227 | 41.632 | -4.271 | 1.00 | 14.48 | lite |
| ATOM | 1652 | C | TYR | 1177 | 70.874 | 37.289 | -2.089 | 1.00 | 7.59 | lite |
| ATOM | 1653 | O | TYR | 1177 | 70.623 | 36.704 | -1.033 | 1.00 | 14.48 | lite |
| ATOM | 1654 | N | SER | 1178 | 70.167 | 36.953 | -3.128 | 1.00 | 10.57 | lite |
| ATOM | 1656 | CA | SER | 1178 | 69.092 | 35.994 | -3.103 | 1.00 | 10.57 | lite |
| ATOM | 1657 | CB | SER | 1178 | 67.785 | 36.614 | -2.821 | 1.00 | 9.70 | lite |
| ATOM | 1658 | OG | SER | 1178 | 67.808 | 37.065 | -1.497 | 1.00 | 9.70 | lite |
| ATOM | 1660 | C | SER | 1178 | 68.988 | 35.443 | -4.480 | 1.00 | 10.57 | lite |
| ATOM | 1661 | O | SER | 1178 | 69.321 | 36.132 | -5.446 | 1.00 | 9.70 | lite |
| ATOM | 1662 | N | MET | 1179 | 68.455 | 34.248 | -4.582 | 1.00 | 15.87 | lite |
| ATOM | 1664 | CA | MET | 1179 | 68.298 | 33.566 | -5.844 | 1.00 | 15.87 | lite |
| ATOM | 1665 | CB | MET | 1179 | 69.572 | 32.833 | -6.100 | 1.00 | 14.35 | lite |
| ATOM | 1666 | CG | MET | 1179 | 69.596 | 32.122 | -7.405 | 1.00 | 14.35 | lite |
| ATOM | 1667 | SD | MET | 1179 | 70.701 | 30.712 | -7.232 | 1.00 | 14.35 | lite |
| ATOM | 1668 | CE | MET | 1179 | 70.574 | 30.249 | -8.943 | 1.00 | 14.35 | lite |
| ATOM | 1669 | C | MET | 1179 | 67.103 | 32.595 | -5.929 | 1.00 | 15.87 | lite |
| ATOM | 1670 | O | MET | 1179 | 66.701 | 31.970 | -4.925 | 1.00 | 14.35 | lite |
| ATOM | 1671 | N | SER | 1180 | 66.449 | 32.481 | -7.103 | 1.00 | 6.22 | lite |
| ATOM | 1673 | CA | SER | 1180 | 65.419 | 31.448 | -7.261 | 1.00 | 6.22 | lite |
| ATOM | 1674 | CB | SER | 1180 | 63.943 | 31.870 | -7.456 | 1.00 | 4.23 | lite |
| ATOM | 1675 | OG | SER | 1180 | 63.591 | 32.725 | -8.522 | 1.00 | 4.23 | lite |
| ATOM | 1677 | C | SER | 1180 | 65.649 | 30.645 | -8.467 | 1.00 | 6.22 | lite |
| ATOM | 1678 | O | SER | 1180 | 66.120 | 31.092 | -9.494 | 1.00 | 4.23 | lite |
| ATOM | 1679 | N | SER | 1181 | 65.413 | 29.389 | -8.197 | 1.00 | 2.00 | lite |
| ATOM | 1681 | CA | SER | 1181 | 65.540 | 28.339 | -9.180 | 1.00 | 2.00 | lite |
| ATOM | 1682 | CB | SER | 1181 | 66.562 | 27.329 | -8.697 | 1.00 | 8.08 | lite |
| ATOM | 1683 | OG | SER | 1181 | 66.845 | 26.266 | -9.591 | 1.00 | 8.08 | lite |
| ATOM | 1685 | C | SER | 1181 | 64.206 | 27.655 | -9.407 | 1.00 | 2.00 | lite |
| ATOM | 1686 | O | SER | 1181 | 63.611 | 27.166 | -8.476 | 1.00 | 8.08 | lite |
| ATOM | 1687 | N | THR | 1182 | 63.632 | 27.668 | -10.588 | 1.00 | 17.75 | lite |
| ATOM | 1689 | CA | THR | 1182 | 62.376 | 26.973 | -10.892 | 1.00 | 17.75 | lite |
| ATOM | 1690 | CB | THR | 1182 | 61.313 | 27.898 | -11.597 | 1.00 | 5.10 | lite |
| ATOM | 1691 | OG1 | THR | 1182 | 61.112 | 28.974 | -10.717 | 1.00 | 5.10 | lite |
| ATOM | 1693 | CG2 | THR | 1182 | 59.970 | 27.298 | -11.804 | 1.00 | 5.10 | lite |
| ATOM | 1694 | C | THR | 1182 | 62.652 | 25.792 | -11.819 | 1.00 | 17.75 | lite |
| ATOM | 1695 | O | THR | 1182 | 63.235 | 25.937 | -12.876 | 1.00 | 5.10 | lite |
| ATOM | 1696 | N | LEU | 1183 | 62.351 | 24.582 | -11.421 | 1.00 | 2.00 | lite |
| ATOM | 1698 | CA | LEU | 1183 | 62.374 | 23.479 | -12.331 | 1.00 | 2.00 | lite |
| ATOM | 1699 | CB | LEU | 1183 | 62.686 | 22.196 | -11.666 | 1.00 | 11.37 | lite |
| ATOM | 1700 | CG | LEU | 1183 | 62.429 | 20.921 | -12.389 | 1.00 | 11.37 | lite |
| ATOM | 1701 | CD1 | LEU | 1183 | 63.361 | 20.855 | -13.542 | 1.00 | 11.37 | lite |
| ATOM | 1702 | CD2 | LEU | 1183 | 62.757 | 19.737 | -11.539 | 1.00 | 11.37 | lite |
| ATOM | 1703 | C | LEU | 1183 | 60.949 | 23.385 | -12.820 | 1.00 | 2.00 | lite |
| ATOM | 1704 | O | LEU | 1183 | 60.007 | 23.247 | -12.037 | 1.00 | 11.37 | lite |
| ATOM | 1705 | N | THR | 1184 | 60.674 | 23.560 | -14.097 | 1.00 | 7.93 | lite |
| ATOM | 1707 | CA | THR | 1184 | 59.304 | 23.373 | -14.564 | 1.00 | 7.93 | lite |
| ATOM | 1708 | CB | THR | 1184 | 58.746 | 24.870 | -15.014 | 1.00 | 11.15 | lite |
| ATOM | 1709 | OG1 | THR | 1184 | 57.837 | 24.653 | -16.045 | 1.00 | 11.15 | lite |
| ATOM | 1711 | CG2 | THR | 1184 | 59.766 | 25.907 | -15.468 | 1.00 | 11.15 | lite |
| ATOM | 1712 | C | THR | 1184 | 59.265 | 22.223 | -15.581 | 1.00 | 7.93 | lite |
| ATOM | 1713 | O | THR | 1184 | 60.128 | 21.987 | -16.394 | 1.00 | 11.15 | lite |
| ATOM | 1714 | N | LEU | 1185 | 58.372 | 21.281 | -15.274 | 1.00 | 12.24 | lite |
| ATOM | 1716 | CA | LEU | 1185 | 58.156 | 19.982 | -15.938 | 1.00 | 12.24 | lite |
| ATOM | 1717 | CB | LEU | 1185 | 58.439 | 18.902 | -14.912 | 1.00 | 14.58 | lite |
| ATOM | 1718 | CG | LEU | 1185 | 59.575 | 19.072 | -13.972 | 1.00 | 14.58 | lite |
| ATOM | 1719 | CD1 | LEU | 1185 | 59.337 | 18.347 | -12.666 | 1.00 | 14.58 | lite |
| ATOM | 1720 | CD2 | LEU | 1185 | 60.781 | 18.657 | -14.718 | 1.00 | 14.58 | lite |
| ATOM | 1721 | C | LEU | 1185 | 56.695 | 19.776 | -16.516 | 1.00 | 12.24 | lite |
| ATOM | 1722 | O | LEU | 1185 | 55.821 | 20.610 | -16.253 | 1.00 | 14.58 | lite |

| ATOM | 1723 | N | THR | 1186 | 56.285 | 18.780 | -17.329 | 1.00 | 2.00 | lite |
|------|------|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 1725 | CA | THR | 1186 | 54.894 | 18.597 | -17.762 | 1.00 | 2.00 | lite |
| ATOM | 1726 | CB | THR | 1186 | 54.731 | 17.685 | -18.958 | 1.00 | 14.71 | lite |
| ATOM | 1727 | OG1 | THR | 1186 | 55.196 | 16.372 | -18.627 | 1.00 | 14.71 | lite |
| ATOM | 1729 | CG2 | THR | 1186 | 55.528 | 18.232 | -20.135 | 1.00 | 14.71 | lite |
| ATOM | 1730 | C | THR | 1186 | 54.165 | 17.919 | -16.673 | 1.00 | 2.00 | lite |
| ATOM | 1731 | O | THR | 1186 | 54.885 | 17.333 | -15.883 | 1.00 | 14.71 | lite |
| ATOM | 1732 | N | LYS | 1187 | 52.842 | 17.821 | -16.564 | 1.00 | 9.64 | lite |
| ATOM | 1734 | CA | LYS | 1187 | 52.202 | 17.155 | -15.429 | 1.00 | 9.64 | lite |
| ATOM | 1735 | CB | LYS | 1187 | 50.764 | 17.137 | -15.606 | 1.00 | 23.47 | lite |
| ATOM | 1736 | CG | LYS | 1187 | 50.119 | 17.175 | -14.264 | 1.00 | 23.47 | lite |
| ATOM | 1737 | CD | LYS | 1187 | 49.036 | 16.126 | -14.335 | 1.00 | 23.47 | lite |
| ATOM | 1738 | CE | LYS | 1187 | 48.268 | 16.058 | -13.024 | 1.00 | 23.47 | lite |
| ATOM | 1739 | NZ | LYS | 1187 | 47.355 | 14.923 | -13.041 | 1.00 | 23.47 | lite |
| ATOM | 1743 | C | LYS | 1187 | 52.635 | 15.726 | -15.277 | 1.00 | 9.64 | lite |
| ATOM | 1744 | O | LYS | 1187 | 53.150 | 15.294 | -14.263 | 1.00 | 23.47 | lite |
| ATOM | 1745 | N | ASP | 1188 | 52.524 | 14.981 | -16.362 | 1.00 | 7.71 | lite |
| ATOM | 1747 | CA | ASP | 1188 | 52.952 | 13.600 | -16.451 | 1.00 | 7.71 | lite |
| ATOM | 1748 | CB | ASP | 1188 | 52.658 | 13.066 | -17.810 | 1.00 | 26.61 | lite |
| ATOM | 1749 | CG | ASP | 1188 | 51.169 | 13.107 | -18.170 | 1.00 | 26.61 | lite |
| ATOM | 1750 | OD1 | ASP | 1188 | 50.278 | 12.949 | -17.302 | 1.00 | 26.61 | lite |
| ATOM | 1751 | OD2 | ASP | 1188 | 50.898 | 13.324 | -19.357 | 1.00 | 26.61 | lite |
| ATOM | 1752 | C | ASP | 1188 | 54.403 | 13.433 | -16.186 | 1.00 | 7.71 | lite |
| ATOM | 1753 | O | ASP | 1188 | 54.724 | 12.530 | -15.461 | 1.00 | 26.61 | lite |
| ATOM | 1754 | N | GLU | 1189 | 55.355 | 14.202 | -16.646 | 1.00 | 10.85 | lite |
| ATOM | 1756 | CA | GLU | 1189 | 56.720 | 13.982 | -16.160 | 1.00 | 10.85 | lite |
| ATOM | 1757 | CB | GLU | 1189 | 57.706 | 14.847 | -16.891 | 1.00 | 17.17 | lite |
| ATOM | 1758 | CG | GLU | 1189 | 59.161 | 14.694 | -16.495 | 1.00 | 17.17 | lite |
| ATOM | 1759 | CD | GLU | 1189 | 59.823 | 13.369 | -16.807 | 1.00 | 17.17 | lite |
| ATOM | 1760 | OE1 | GLU | 1189 | 60.952 | 13.211 | -16.402 | 1.00 | 17.17 | lite |
| ATOM | 1761 | OE2 | GLU | 1189 | 59.267 | 12.500 | -17.470 | 1.00 | 17.17 | lite |
| ATOM | 1762 | C | GLU | 1189 | 56.940 | 14.238 | -14.672 | 1.00 | 10.85 | lite |
| ATOM | 1763 | O | GLU | 1189 | 57.697 | 13.496 | -14.055 | 1.00 | 17.17 | lite |
| ATOM | 1764 | N | TYR | 1190 | 56.314 | 15.255 | -14.068 | 1.00 | 6.37 | lite |
| ATOM | 1766 | CA | TYR | 1190 | 56.366 | 15.463 | -12.618 | 1.00 | 6.37 | lite |
| ATOM | 1767 | CB | TYR | 1190 | 55.434 | 16.619 | -12.139 | 1.00 | 10.87 | lite |
| ATOM | 1768 | CG | TYR | 1190 | 55.294 | 16.798 | -10.615 | 1.00 | 10.87 | lite |
| ATOM | 1769 | CD1 | TYR | 1190 | 56.393 | 17.109 | -9.836 | 1.00 | 10.87 | lite |
| ATOM | 1770 | CE1 | TYR | 1190 | 56.272 | 17.310 | -8.478 | 1.00 | 10.87 | lite |
| ATOM | 1771 | CD2 | TYR | 1190 | 54.068 | 16.690 | -9.979 | 1.00 | 10.87 | lite |
| ATOM | 1772 | CE2 | TYR | 1190 | 53.937 | 16.886 | -8.604 | 1.00 | 10.87 | lite |
| ATOM | 1773 | CZ | TYR | 1190 | 55.054 | 17.211 | -7.856 | 1.00 | 10.87 | lite |
| ATOM | 1774 | OH | TYR | 1190 | 54.975 | 17.522 | -6.505 | 1.00 | 10.87 | lite |
| ATOM | 1776 | C | TYR | 1190 | 55.911 | 14.205 | -11.903 | 1.00 | 6.37 | lite |
| ATOM | 1777 | O | TYR | 1190 | 56.512 | 13.670 | -10.986 | 1.00 | 10.87 | lite |
| ATOM | 1778 | N | GLU | 1191 | 54.832 | 13.690 | -12.414 | 1.00 | 16.57 | lite |
| ATOM | 1780 | CA | GLU | 1191 | 54.237 | 12.534 | -11.813 | 1.00 | 16.57 | lite |
| ATOM | 1781 | CB | GLU | 1191 | 52.810 | 12.511 | -12.335 | 1.00 | 28.83 | lite |
| ATOM | 1782 | CG | GLU | 1191 | 52.010 | 13.514 | -11.533 | 1.00 | 28.83 | lite |
| ATOM | 1783 | CD | GLU | 1191 | 50.494 | 13.506 | -11.674 | 1.00 | 28.83 | lite |
| ATOM | 1784 | OE1 | GLU | 1191 | 49.914 | 14.167 | -10.788 | 1.00 | 28.83 | lite |
| ATOM | 1785 | OE2 | GLU | 1191 | 49.929 | 12.888 | -12.612 | 1.00 | 28.83 | lite |
| ATOM | 1786 | C | GLU | 1191 | 54.968 | 11.181 | -12.008 | 1.00 | 16.57 | lite |
| ATOM | 1787 | O | GLU | 1191 | 54.728 | 10.120 | -11.382 | 1.00 | 28.83 | lite |
| ATOM | 1788 | N | ARG | 1192 | 55.958 | 11.209 | -12.863 | 1.00 | 18.01 | lite |
| ATOM | 1790 | CA | ARG | 1192 | 56.736 | 10.027 | -13.061 | 1.00 | 18.01 | lite |
| ATOM | 1791 | CB | ARG | 1192 | 57.069 | 10.057 | -14.569 | 1.00 | 15.90 | lite |
| ATOM | 1792 | CG | ARG | 1192 | 57.978 | 9.059 | -15.288 | 1.00 | 15.90 | lite |
| ATOM | 1793 | CD | ARG | 1192 | 59.142 | 9.877 | -15.694 | 1.00 | 15.90 | lite |
| ATOM | 1794 | NE | ARG | 1192 | 59.974 | 8.942 | -16.357 | 1.00 | 15.90 | lite |
| ATOM | 1796 | CZ | ARG | 1192 | 61.098 | 9.306 | -16.947 | 1.00 | 15.90 | lite |
| ATOM | 1797 | NH1 | ARG | 1192 | 61.541 | 10.569 | -16.973 | 1.00 | 15.90 | lite |
| ATOM | 1800 | NH2 | ARG | 1192 | 61.785 | 8.359 | -17.559 | 1.00 | 15.90 | lite |
| ATOM | 1803 | C | ARG | 1192 | 57.911 | 10.139 | -12.082 | 1.00 | 18.01 | lite |
| ATOM | 1804 | O | ARG | 1192 | 59.033 | 9.716 | -12.396 | 1.00 | 15.90 | lite |
| ATOM | 1805 | N | HIS | 1193 | 57.750 | 10.674 | -10.854 | 1.00 | 12.99 | lite |
| ATOM | 1807 | CA | HIS | 1193 | 58.918 | 10.891 | -10.021 | 1.00 | 12.99 | lite |

| ATOM | 1808 | CB | HIS | 1193 | 59.644 | 12.157 | -10.391 | 1.00 | 21.39 | lite |
|------|------|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 1809 | CG | HIS | 1193 | 60.449 | 12.057 | -11.655 | 1.00 | 21.39 | lite |
| ATOM | 1810 | CD2 | HIS | 1193 | 60.253 | 12.816 | -12.772 | 1.00 | 21.39 | lite |
| ATOM | 1811 | ND1 | HIS | 1193 | 61.448 | 11.245 | -11.883 | 1.00 | 21.39 | lite |
| ATOM | 1813 | CE1 | HIS | 1193 | 61.888 | 11.458 | -13.091 | 1.00 | 21.39 | lite |
| ATOM | 1814 | NE2 | HIS | 1193 | 61.155 | 12.407 | -13.600 | 1.00 | 21.39 | lite |
| ATOM | 1816 | C | HIS | 1193 | 59.061 | 10.920 | -8.528 | 1.00 | 12.99 | lite |
| ATOM | 1817 | O | HIS | 1193 | 60.235 | 10.854 | -8.161 | 1.00 | 21.39 | lite |
| ATOM | 1818 | N | ASN | 1194 | 58.194 | 11.031 | -7.535 | 1.00 | 19.45 | lite |
| ATOM | 1820 | CA | ASN | 1194 | 58.612 | 10.871 | -6.113 | 1.00 | 19.45 | lite |
| ATOM | 1821 | CB | ASN | 1194 | 59.063 | 9.406 | -5.910 | 1.00 | 32.31 | lite |
| ATOM | 1822 | CG | ASN | 1194 | 58.970 | 9.060 | -4.428 | 1.00 | 32.31 | lite |
| ATOM | 1823 | OD1 | ASN | 1194 | 57.935 | 8.594 | -3.973 | 1.00 | 32.31 | lite |
| ATOM | 1824 | ND2 | ASN | 1194 | 59.969 | 9.280 | -3.559 | 1.00 | 32.31 | lite |
| ATOM | 1827 | C | ASN | 1194 | 59.659 | 11.830 | -5.523 | 1.00 | 19.45 | lite |
| ATOM | 1828 | O | ASN | 1194 | 59.177 | 12.916 | -5.257 | 1.00 | 32.31 | lite |
| ATOM | 1829 | N | SER | 1195 | 60.984 | 11.650 | -5.286 | 1.00 | 2.00 | lite |
| ATOM | 1831 | CA | SER | 1195 | 61.852 | 12.653 | -4.647 | 1.00 | 2.00 | lite |
| ATOM | 1832 | CB | SER | 1195 | 63.063 | 11.978 | -4.145 | 1.00 | 18.15 | lite |
| ATOM | 1833 | OG | SER | 1195 | 64.269 | 12.736 | -3.941 | 1.00 | 18.15 | lite |
| ATOM | 1835 | C | SER | 1195 | 62.335 | 13.885 | -5.415 | 1.00 | 2.00 | lite |
| ATOM | 1836 | O | SER | 1195 | 62.817 | 13.736 | -6.527 | 1.00 | 18.15 | lite |
| ATOM | 1837 | N | TYR | 1196 | 62.292 | 15.118 | -4.897 | 1.00 | 21.16 | lite |
| ATOM | 1839 | CA | TYR | 1196 | 62.787 | 16.372 | -5.533 | 1.00 | 21.16 | lite |
| ATOM | 1840 | CB | TYR | 1196 | 61.655 | 17.333 | -5.963 | 1.00 | 13.67 | lite |
| ATOM | 1841 | CG | TYR | 1196 | 60.840 | 16.804 | -7.141 | 1.00 | 13.67 | lite |
| ATOM | 1842 | CD1 | TYR | 1196 | 61.020 | 17.318 | -8.432 | 1.00 | 13.67 | lite |
| ATOM | 1843 | CE1 | TYR | 1196 | 60.366 | 16.736 | -9.511 | 1.00 | 13.67 | lite |
| ATOM | 1844 | CD2 | TYR | 1196 | 60.000 | 15.729 | -6.918 | 1.00 | 13.67 | lite |
| ATOM | 1845 | CE2 | TYR | 1196 | 59.351 | 15.149 | -7.988 | 1.00 | 13.67 | lite |
| ATOM | 1846 | CZ | TYR | 1196 | 59.546 | 15.659 | -9.260 | 1.00 | 13.67 | lite |
| ATOM | 1847 | OH | TYR | 1196 | 58.904 | 15.056 | -10.309 | 1.00 | 13.67 | lite |
| ATOM | 1849 | C | TYR | 1196 | 63.685 | 17.172 | -4.593 | 1.00 | 21.16 | lite |
| ATOM | 1850 | O | TYR | 1196 | 63.334 | 17.585 | -3.505 | 1.00 | 13.67 | lite |
| ATOM | 1851 | N | THR | 1197 | 64.896 | 17.422 | -4.987 | 1.00 | 10.69 | lite |
| ATOM | 1853 | CA | THR | 1197 | 65.881 | 17.993 | -4.093 | 1.00 | 10.69 | lite |
| ATOM | 1854 | CB | THR | 1197 | 67.071 | 17.066 | -3.807 | 1.00 | 18.47 | lite |
| ATOM | 1855 | OG1 | THR | 1197 | 66.439 | 15.938 | -3.238 | 1.00 | 18.47 | lite |
| ATOM | 1857 | CG2 | THR | 1197 | 68.178 | 17.619 | -2.930 | 1.00 | 18.47 | lite |
| ATOM | 1858 | C | THR | 1197 | 66.481 | 19.201 | -4.698 | 1.00 | 10.69 | lite |
| ATOM | 1859 | O | THR | 1197 | 66.881 | 19.176 | -5.856 | 1.00 | 18.47 | lite |
| ATOM | 1860 | N | CYS | 1198 | 66.670 | 20.187 | -3.845 | 1.00 | 10.83 | lite |
| ATOM | 1862 | CA | CYS | 1198 | 67.179 | 21.437 | -4.256 | 1.00 | 10.83 | lite |
| ATOM | 1863 | C | CYS | 1198 | 68.470 | 21.520 | -3.530 | 1.00 | 10.83 | lite |
| ATOM | 1864 | O | CYS | 1198 | 68.491 | 21.937 | -2.395 | 1.00 | 20.33 | lite |
| ATOM | 1865 | CB | CYS | 1198 | 66.200 | 22.471 | -3.829 | 1.00 | 20.33 | lite |
| ATOM | 1866 | SG | CYS | 1198 | 66.894 | 23.999 | -4.402 | 1.00 | 20.33 | lite |
| ATOM | 1867 | N | GLU | 1199 | 69.577 | 21.093 | -4.087 | 1.00 | 8.80 | lite |
| ATOM | 1869 | CA | GLU | 1199 | 70.877 | 21.177 | -3.432 | 1.00 | 8.80 | lite |
| ATOM | 1870 | CB | GLU | 1199 | 71.534 | 19.907 | -3.852 | 1.00 | 30.85 | lite |
| ATOM | 1871 | CG | GLU | 1199 | 73.017 | 19.673 | -3.695 | 1.00 | 30.85 | lite |
| ATOM | 1872 | CD | GLU | 1199 | 73.379 | 18.198 | -3.920 | 1.00 | 30.85 | lite |
| ATOM | 1873 | OE1 | GLU | 1199 | 72.844 | 17.334 | -3.191 | 1.00 | 30.85 | lite |
| ATOM | 1874 | OE2 | GLU | 1199 | 74.193 | 17.927 | -4.822 | 1.00 | 30.85 | lite |
| ATOM | 1875 | C | GLU | 1199 | 71.725 | 22.422 | -3.699 | 1.00 | 8.80 | lite |
| ATOM | 1876 | O | GLU | 1199 | 72.254 | 22.698 | -4.785 | 1.00 | 30.85 | lite |
| ATOM | 1877 | N | ALA | 1200 | 71.889 | 23.324 | -2.776 | 1.00 | 15.83 | lite |
| ATOM | 1879 | CA | ALA | 1200 | 72.740 | 24.495 | -3.018 | 1.00 | 15.83 | lite |
| ATOM | 1880 | CB | ALA | 1200 | 72.255 | 25.744 | -2.301 | 1.00 | 6.70 | lite |
| ATOM | 1881 | C | ALA | 1200 | 74.073 | 24.166 | -2.451 | 1.00 | 15.83 | lite |
| ATOM | 1882 | O | ALA | 1200 | 74.184 | 23.388 | -1.512 | 1.00 | 6.70 | lite |
| ATOM | 1883 | N | THR | 1201 | 75.103 | 24.690 | -3.056 | 1.00 | 12.85 | lite |
| ATOM | 1885 | CA | THR | 1201 | 76.463 | 24.531 | -2.535 | 1.00 | 12.85 | lite |
| ATOM | 1886 | CB | THR | 1201 | 77.289 | 23.737 | -3.537 | 1.00 | 22.03 | lite |
| ATOM | 1887 | OG1 | THR | 1201 | 76.673 | 22.471 | -3.645 | 1.00 | 22.03 | lite |
| ATOM | 1889 | CG2 | THR | 1201 | 78.740 | 23.546 | -3.123 | 1.00 | 22.03 | lite |
| ATOM | 1890 | C | THR | 1201 | 77.028 | 25.954 | -2.358 | 1.00 | 12.85 | lite |

| ATOM | 1891 | O   | THR | 1201 | 76.874 | 26.772 | -3.279 | 1.00 | 22.03 | lite |
|------|------|-----|-----|------|--------|--------|--------|------|-------|------|
| ATOM | 1892 | N   | HIS | 1202 | 77.681 | 26.367 | -1.267 | 1.00 | 16.21 | lite |
| ATOM | 1894 | CA  | HIS | 1202 | 78.136 | 27.767 | -1.086 | 1.00 | 16.21 | lite |
| ATOM | 1895 | CB  | HIS | 1202 | 76.997 | 28.601 | -0.504 | 1.00 | 17.54 | lite |
| ATOM | 1896 | CG  | HIS | 1202 | 77.139 | 30.083 | -0.225 | 1.00 | 17.54 | lite |
| ATOM | 1897 | CD2 | HIS | 1202 | 77.237 | 30.612 | 1.037  | 1.00 | 17.54 | lite |
| ATOM | 1898 | ND1 | HIS | 1202 | 77.104 | 31.098 | -1.067 | 1.00 | 17.54 | lite |
| ATOM | 1900 | CE1 | HIS | 1202 | 77.168 | 32.203 | -0.354 | 1.00 | 17.54 | lite |
| ATOM | 1901 | NE2 | HIS | 1202 | 77.252 | 31.905 | 0.925  | 1.00 | 17.54 | lite |
| ATOM | 1903 | C   | HIS | 1202 | 79.330 | 27.889 | -0.140 | 1.00 | 16.21 | lite |
| ATOM | 1904 | O   | HIS | 1202 | 79.404 | 27.080 | 0.785  | 1.00 | 17.54 | lite |
| ATOM | 1905 | N   | LYS | 1203 | 80.173 | 28.946 | -0.236 | 1.00 | 30.50 | lite |
| ATOM | 1907 | CA  | LYS | 1203 | 81.354 | 29.170 | 0.635  | 1.00 | 30.50 | lite |
| ATOM | 1908 | CB  | LYS | 1203 | 81.883 | 30.557 | 0.315  | 1.00 | 29.49 | lite |
| ATOM | 1909 | CG  | LYS | 1203 | 82.080 | 31.512 | 1.497  | 1.00 | 29.49 | lite |
| ATOM | 1910 | CD  | LYS | 1203 | 83.539 | 31.564 | 1.983  | 1.00 | 29.49 | lite |
| ATOM | 1911 | CE  | LYS | 1203 | 83.821 | 32.750 | 2.908  | 1.00 | 29.49 | lite |
| ATOM | 1912 | NZ  | LYS | 1203 | 83.361 | 33.971 | 2.264  | 1.00 | 29.49 | lite |
| ATOM | 1916 | C   | LYS | 1203 | 81.186 | 29.017 | 2.147  | 1.00 | 30.50 | lite |
| ATOM | 1917 | O   | LYS | 1203 | 82.156 | 28.811 | 2.858  | 1.00 | 29.49 | lite |
| ATOM | 1918 | N   | THR | 1204 | 79.960 | 29.146 | 2.676  | 1.00 | 26.10 | lite |
| ATOM | 1920 | CA  | THR | 1204 | 79.678 | 29.016 | 4.104  | 1.00 | 26.10 | lite |
| ATOM | 1921 | CB  | THR | 1204 | 78.476 | 29.921 | 4.378  | 1.00 | 33.12 | lite |
| ATOM | 1922 | OG1 | THR | 1204 | 77.363 | 29.447 | 3.627  | 1.00 | 33.12 | lite |
| ATOM | 1924 | CG2 | THR | 1204 | 78.740 | 31.332 | 3.914  | 1.00 | 33.12 | lite |
| ATOM | 1925 | C   | THR | 1204 | 79.446 | 27.573 | 4.625  | 1.00 | 26.10 | lite |
| ATOM | 1926 | O   | THR | 1204 | 79.170 | 27.292 | 5.810  | 1.00 | 33.12 | lite |
| ATOM | 1927 | N   | SER | 1205 | 79.474 | 26.590 | 3.753  | 1.00 | 22.64 | lite |
| ATOM | 1929 | CA  | SER | 1205 | 79.466 | 25.210 | 4.217  | 1.00 | 22.64 | lite |
| ATOM | 1930 | CB  | SER | 1205 | 78.082 | 24.563 | 4.500  | 1.00 | 38.40 | lite |
| ATOM | 1931 | OG  | SER | 1205 | 78.243 | 23.123 | 4.768  | 1.00 | 38.40 | lite |
| ATOM | 1933 | C   | SER | 1205 | 80.079 | 24.272 | 3.215  | 1.00 | 22.64 | lite |
| ATOM | 1934 | O   | SER | 1205 | 79.894 | 24.392 | 1.988  | 1.00 | 38.40 | lite |
| ATOM | 1935 | N   | THR | 1206 | 80.819 | 23.389 | 3.925  | 1.00 | 41.32 | lite |
| ATOM | 1937 | CA  | THR | 1206 | 81.595 | 22.211 | 3.409  | 1.00 | 41.32 | lite |
| ATOM | 1938 | CB  | THR | 1206 | 82.223 | 21.574 | 4.719  | 1.00 | 30.51 | lite |
| ATOM | 1939 | OG1 | THR | 1206 | 83.048 | 22.715 | 5.166  | 1.00 | 30.51 | lite |
| ATOM | 1941 | CG2 | THR | 1206 | 82.946 | 20.188 | 4.630  | 1.00 | 30.51 | lite |
| ATOM | 1942 | C   | THR | 1206 | 80.716 | 21.245 | 2.591  | 1.00 | 41.32 | lite |
| ATOM | 1943 | O   | THR | 1206 | 80.913 | 21.007 | 1.387  | 1.00 | 30.51 | lite |
| ATOM | 1944 | N   | SER | 1207 | 79.684 | 20.688 | 3.251  | 1.00 | 20.15 | lite |
| ATOM | 1946 | CA  | SER | 1207 | 78.693 | 19.841 | 2.566  | 1.00 | 20.15 | lite |
| ATOM | 1947 | CB  | SER | 1207 | 77.971 | 19.015 | 3.537  | 1.00 | 24.28 | lite |
| ATOM | 1948 | OG  | SER | 1207 | 77.770 | 19.892 | 4.629  | 1.00 | 24.28 | lite |
| ATOM | 1950 | C   | SER | 1207 | 77.637 | 20.650 | 1.852  | 1.00 | 20.15 | lite |
| ATOM | 1951 | O   | SER | 1207 | 77.362 | 21.764 | 2.310  | 1.00 | 24.28 | lite |
| ATOM | 1952 | N   | PRO | 1208 | 76.922 | 20.217 | 0.802  | 1.00 | 30.25 | lite |
| ATOM | 1953 | CD  | PRO | 1208 | 77.091 | 18.957 | 0.066  | 1.00 | 21.52 | lite |
| ATOM | 1954 | CA  | PRO | 1208 | 75.870 | 21.061 | 0.191  | 1.00 | 30.25 | lite |
| ATOM | 1955 | CB  | PRO | 1208 | 75.447 | 20.277 | -1.016 | 1.00 | 21.52 | lite |
| ATOM | 1956 | CG  | PRO | 1208 | 76.625 | 19.336 | -1.333 | 1.00 | 21.52 | lite |
| ATOM | 1957 | C   | PRO | 1208 | 74.701 | 21.364 | 1.127  | 1.00 | 30.25 | lite |
| ATOM | 1958 | O   | PRO | 1208 | 74.376 | 20.568 | 2.012  | 1.00 | 21.52 | lite |
| ATOM | 1959 | N   | ILE | 1209 | 74.037 | 22.512 | 0.991  | 1.00 | 26.33 | lite |
| ATOM | 1961 | CA  | ILE | 1209 | 72.810 | 22.834 | 1.738  | 1.00 | 26.33 | lite |
| ATOM | 1962 | CB  | ILE | 1209 | 72.783 | 24.385 | 1.855  | 1.00 | 16.40 | lite |
| ATOM | 1963 | CG2 | ILE | 1209 | 71.499 | 24.853 | 2.521  | 1.00 | 16.40 | lite |
| ATOM | 1964 | CG1 | ILE | 1209 | 73.964 | 24.846 | 2.707  | 1.00 | 16.40 | lite |
| ATOM | 1965 | CD1 | ILE | 1209 | 74.463 | 26.311 | 2.558  | 1.00 | 16.40 | lite |
| ATOM | 1966 | C   | ILE | 1209 | 71.666 | 22.218 | 0.906  | 1.00 | 26.33 | lite |
| ATOM | 1967 | O   | ILE | 1209 | 71.400 | 22.646 | -0.211 | 1.00 | 16.40 | lite |
| ATOM | 1968 | N   | VAL | 1210 | 71.020 | 21.116 | 1.280  | 1.00 | 17.99 | lite |
| ATOM | 1970 | CA  | VAL | 1210 | 69.952 | 20.544 | -0.452 | 1.00 | 17.99 | lite |
| ATOM | 1971 | CB  | VAL | 1210 | 70.171 | 19.000 | 0.204  | 1.00 | 20.76 | lite |
| ATOM | 1972 | CG1 | VAL | 1210 | 71.672 | 18.692 | 0.294  | 1.00 | 20.76 | lite |
| ATOM | 1973 | CG2 | VAL | 1210 | 69.376 | 18.133 | 1.163  | 1.00 | 20.76 | lite |
| ATOM | 1974 | C   | VAL | 1210 | 68.586 | 20.767 | 1.098  | 1.00 | 17.99 | lite |

| ATOM | 1975 | O | VAL | 1210 | 68.436 | 20.823 | 2.327 | 1.00 | 20.76 | lite |
|------|------|-----|-----|------|--------|--------|--------|------|-------|------|
| ATOM | 1976 | N | LYS | 1211 | 67.549 | 20.898 | 0.299 | 1.00 | 11.13 | lite |
| ATOM | 1978 | CA | LYS | 1211 | 66.199 | 20.982 | 0.787 | 1.00 | 11.13 | lite |
| ATOM | 1979 | CB | LYS | 1211 | 65.757 | 22.382 | 0.645 | 1.00 | 15.55 | lite |
| ATOM | 1980 | CG | LYS | 1211 | 65.528 | 22.901 | 2.042 | 1.00 | 15.55 | lite |
| ATOM | 1981 | CD | LYS | 1211 | 64.086 | 23.297 | 2.380 | 1.00 | 15.55 | lite |
| ATOM | 1982 | CE | LYS | 1211 | 63.766 | 23.329 | 3.886 | 1.00 | 15.55 | lite |
| ATOM | 1983 | NZ | LYS | 1211 | 64.558 | 24.260 | 4.693 | 1.00 | 15.55 | lite |
| ATOM | 1987 | C | LYS | 1211 | 65.388 | 20.047 | -0.070 | 1.00 | 11.13 | lite |
| ATOM | 1988 | O | LYS | 1211 | 65.489 | 20.162 | -1.285 | 1.00 | 15.55 | lite |
| ATOM | 1989 | N | SER | 1212 | 64.601 | 19.088 | 0.379 | 1.00 | 8.49 | lite |
| ATOM | 1991 | CA | SER | 1212 | 63.831 | 18.264 | -0.574 | 1.00 | 8.49 | lite |
| ATOM | 1992 | CB | SER | 1212 | 64.413 | 16.899 | -0.823 | 1.00 | 14.25 | lite |
| ATOM | 1993 | OG | SER | 1212 | 65.591 | 16.683 | -0.104 | 1.00 | 14.25 | lite |
| ATOM | 1995 | C | SER | 1212 | 62.382 | 17.941 | -0.276 | 1.00 | 8.49 | lite |
| ATOM | 1996 | O | SER | 1212 | 61.902 | 18.382 | 0.747 | 1.00 | 14.25 | lite |
| ATOM | 1997 | N | PHE | 1213 | 61.631 | 17.242 | -1.128 | 1.00 | 15.28 | lite |
| ATOM | 1999 | CA | PHE | 1213 | 60.281 | 16.778 | -0.814 | 1.00 | 15.28 | lite |
| ATOM | 2000 | CB | PHE | 1213 | 59.152 | 17.807 | -1.159 | 1.00 | 19.52 | lite |
| ATOM | 2001 | CG | PHE | 1213 | 58.726 | 18.164 | -2.589 | 1.00 | 19.52 | lite |
| ATOM | 2002 | CD1 | PHE | 1213 | 57.742 | 17.400 | -3.231 | 1.00 | 19.52 | lite |
| ATOM | 2003 | CD2 | PHE | 1213 | 59.359 | 19.209 | -3.260 | 1.00 | 19.52 | lite |
| ATOM | 2004 | CE1 | PHE | 1213 | 57.361 | 17.668 | -4.545 | 1.00 | 19.52 | lite |
| ATOM | 2005 | CE2 | PHE | 1213 | 58.983 | 19.481 | -4.564 | 1.00 | 19.52 | lite |
| ATOM | 2006 | CZ | PHE | 1213 | 58.007 | 18.705 | -5.203 | 1.00 | 19.52 | lite |
| ATOM | 2007 | C | PHE | 1213 | 59.928 | 15.517 | -1.564 | 1.00 | 15.28 | lite |
| ATOM | 2008 | O | PHE | 1213 | 60.477 | 15.319 | -2.652 | 1.00 | 19.52 | lite |
| ATOM | 2009 | N | ASN | 1214 | 59.030 | 14.655 | -1.095 | 1.00 | 6.06 | lite |
| ATOM | 2011 | CA | ASN | 1214 | 58.633 | 13.518 | -1.913 | 1.00 | 6.06 | lite |
| ATOM | 2012 | CB | ASN | 1214 | 58.617 | 12.220 | -1.113 | 1.00 | 30.24 | lite |
| ATOM | 2013 | CG | ASN | 1214 | 59.931 | 11.943 | -0.370 | 1.00 | 30.24 | lite |
| ATOM | 2014 | OD1 | ASN | 1214 | 60.717 | 12.835 | 0.003 | 1.00 | 30.24 | lite |
| ATOM | 2015 | ND2 | ASN | 1214 | 60.259 | 10.671 | -0.102 | 1.00 | 30.24 | lite |
| ATOM | 2018 | C | ASN | 1214 | 57.238 | 13.738 | -2.447 | 1.00 | 6.06 | lite |
| ATOM | 2019 | O | ASN | 1214 | 56.408 | 14.097 | -1.624 | 1.00 | 30.24 | lite |
| ATOM | 2020 | N | GLU | 1215 | 56.984 | 13.614 | -3.746 | 1.00 | 22.37 | lite |
| ATOM | 2022 | CA | GLU | 1215 | 55.631 | 13.717 | -4.284 | 1.00 | 22.37 | lite |
| ATOM | 2023 | CB | GLU | 1215 | 55.660 | 13.296 | -5.800 | 1.00 | 22.49 | lite |
| ATOM | 2024 | CG | GLU | 1215 | 54.275 | 13.285 | -6.450 | 1.00 | 22.49 | lite |
| ATOM | 2025 | CD | GLU | 1215 | 54.202 | 12.569 | -7.788 | 1.00 | 22.49 | lite |
| ATOM | 2026 | OE1 | GLU | 1215 | 53.489 | 11.583 | -7.962 | 1.00 | 22.49 | lite |
| ATOM | 2027 | OE2 | GLU | 1215 | 54.879 | 12.993 | -8.707 | 1.00 | 22.49 | lite |
| ATOM | 2028 | C | GLU | 1215 | 54.581 | 12.902 | -3.489 | 1.00 | 22.37 | lite |
| ATOM | 2029 | OT1 | GLU | 1215 | 53.498 | 13.466 | -3.318 | 1.00 | 22.49 | lite |
| ATOM | 2030 | OT2 | GLU | 1215 | 54.827 | 11.762 | -3.014 | 1.00 | 22.49 | lite |
| ATOM | 2031 | CB | ASP | 2001 | 57.717 | 72.209 | -8.554 | 1.00 | 54.94 | heav |
| ATOM | 2032 | CG | ASP | 2001 | 59.012 | 72.460 | -7.733 | 1.00 | 54.94 | heav |
| ATOM | 2033 | OD1 | ASP | 2001 | 59.772 | 71.479 | -7.469 | 1.00 | 54.94 | heav |
| ATOM | 2034 | OD2 | ASP | 2001 | 59.259 | 73.650 | -7.356 | 1.00 | 54.94 | heav |
| ATOM | 2035 | C | ASP | 2001 | 57.695 | 70.499 | -10.371 | 1.00 | 28.53 | heav |
| ATOM | 2036 | O | ASP | 2001 | 56.745 | 70.325 | -11.152 | 1.00 | 54.94 | heav |
| ATOM | 2039 | N | ASP | 2001 | 57.702 | 69.788 | -7.907 | 1.00 | 28.53 | heav |
| ATOM | 2041 | CA | ASP | 2001 | 57.280 | 70.761 | -8.908 | 1.00 | 28.53 | heav |
| ATOM | 2042 | N | VAL | 2002 | 58.952 | 70.437 | -10.870 | 1.00 | 24.12 | heav |
| ATOM | 2044 | CA | VAL | 2002 | 59.181 | 69.982 | -12.273 | 1.00 | 24.12 | heav |
| ATOM | 2045 | CB | VAL | 2002 | 60.600 | 70.418 | -12.807 | 1.00 | 13.56 | heav |
| ATOM | 2046 | CG1 | VAL | 2002 | 60.598 | 70.140 | -14.308 | 1.00 | 13.56 | heav |
| ATOM | 2047 | CG2 | VAL | 2002 | 60.952 | 71.901 | -12.552 | 1.00 | 13.56 | heav |
| ATOM | 2048 | C | VAL | 2002 | 59.080 | 68.429 | -12.322 | 1.00 | 24.12 | heav |
| ATOM | 2049 | O | VAL | 2002 | 59.608 | 67.779 | -11.437 | 1.00 | 13.56 | heav |
| ATOM | 2050 | N | GLN | 2003 | 58.318 | 67.743 | -13.153 | 1.00 | 11.12 | heav |
| ATOM | 2052 | CA | GLN | 2003 | 58.347 | 66.279 | -13.305 | 1.00 | 11.12 | heav |
| ATOM | 2053 | CB | GLN | 2003 | 57.169 | 65.465 | -12.680 | 1.00 | 28.00 | heav |
| ATOM | 2054 | CG | GLN | 2003 | 56.989 | 65.344 | -11.165 | 1.00 | 28.00 | heav |
| ATOM | 2055 | CD | GLN | 2003 | 55.511 | 65.483 | -10.682 | 1.00 | 28.00 | heav |
| ATOM | 2056 | OE1 | GLN | 2003 | 55.290 | 65.481 | -9.453 | 1.00 | 28.00 | heav |
| ATOM | 2057 | NE2 | GLN | 2003 | 54.398 | 65.688 | -11.426 | 1.00 | 28.00 | heav |

| ATOM | 2060 | C | GLN | 2003 | 58.200 | 66.039 | -14.811 | 1.00 | 11.12 | heav |
|------|------|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 2061 | O | GLN | 2003 | 57.480 | 66.704 | -15.556 | 1.00 | 28.00 | heav |
| ATOM | 2062 | N | LEU | 2004 | 58.942 | 65.077 | -15.295 | 1.00 | 4.79 | heav |
| ATOM | 2064 | CA | LEU | 2004 | 58.917 | 64.738 | -16.686 | 1.00 | 4.79 | heav |
| ATOM | 2065 | CB | LEU | 2004 | 60.322 | 64.618 | -17.187 | 1.00 | 9.62 | heav |
| ATOM | 2066 | CG | LEU | 2004 | 61.280 | 65.815 | -17.072 | 1.00 | 9.62 | heav |
| ATOM | 2067 | CD1 | LEU | 2004 | 62.207 | 65.800 | -18.262 | 1.00 | 9.62 | heav |
| ATOM | 2068 | CD2 | LEU | 2004 | 60.511 | 67.136 | -17.069 | 1.00 | 9.62 | heav |
| ATOM | 2069 | C | LEU | 2004 | 58.224 | 63.432 | -16.833 | 1.00 | 4.79 | heav |
| ATOM | 2070 | O | LEU | 2004 | 58.551 | 62.589 | -16.016 | 1.00 | 9.62 | heav |
| ATOM | 2071 | N | GLN | 2005 | 57.282 | 63.143 | -17.727 | 1.00 | 2.00 | heav |
| ATOM | 2073 | CA | GLN | 2005 | 56.730 | 61.798 | -17.783 | 1.00 | 2.00 | heav |
| ATOM | 2074 | CB | GLN | 2005 | 55.427 | 61.724 | -17.157 | 1.00 | 21.94 | heav |
| ATOM | 2075 | CG | GLN | 2005 | 55.637 | 60.739 | -16.056 | 1.00 | 21.94 | heav |
| ATOM | 2076 | CD | GLN | 2005 | 54.389 | 60.408 | -15.201 | 1.00 | 21.94 | heav |
| ATOM | 2077 | OE1 | GLN | 2005 | 53.612 | 61.248 | -14.645 | 1.00 | 21.94 | heav |
| ATOM | 2078 | NE2 | GLN | 2005 | 54.218 | 59.078 | -15.093 | 1.00 | 21.94 | heav |
| ATOM | 2081 | C | GLN | 2005 | 56.560 | 61.220 | -19.155 | 1.00 | 2.00 | heav |
| ATOM | 2082 | O | GLN | 2005 | 55.840 | 61.720 | -20.021 | 1.00 | 21.94 | heav |
| ATOM | 2083 | N | GLN | 2006 | 57.320 | 60.175 | -19.421 | 1.00 | 15.05 | heav |
| ATOM | 2085 | CA | GLN | 2006 | 57.196 | 59.637 | -20.749 | 1.00 | 15.05 | heav |
| ATOM | 2086 | CB | GLN | 2006 | 58.534 | 59.096 | -21.309 | 1.00 | 9.71 | heav |
| ATOM | 2087 | CG | GLN | 2006 | 59.408 | 58.273 | -20.481 | 1.00 | 9.71 | heav |
| ATOM | 2088 | CD | GLN | 2006 | 60.219 | 59.143 | -19.613 | 1.00 | 9.71 | heav |
| ATOM | 2089 | OE1 | GLN | 2006 | 60.020 | 59.240 | -18.426 | 1.00 | 9.71 | heav |
| ATOM | 2090 | NE2 | GLN | 2006 | 61.168 | 59.841 | -20.123 | 1.00 | 9.71 | heav |
| ATOM | 2093 | C | GLN | 2006 | 56.170 | 58.569 | -20.937 | 1.00 | 15.05 | heav |
| ATOM | 2094 | O | GLN | 2006 | 55.878 | 57.816 | -20.015 | 1.00 | 9.71 | heav |
| ATOM | 2095 | N | SER | 2007 | 55.553 | 58.541 | -22.108 | 1.00 | 2.00 | heav |
| ATOM | 2097 | CA | SER | 2007 | 54.568 | 57.504 | -22.408 | 1.00 | 2.00 | heav |
| ATOM | 2098 | CB | SER | 2007 | 53.211 | 57.956 | -21.938 | 1.00 | 10.02 | heav |
| ATOM | 2099 | OG | SER | 2007 | 53.005 | 59.299 | -22.342 | 1.00 | 10.02 | heav |
| ATOM | 2101 | C | SER | 2007 | 54.466 | 57.090 | -23.867 | 1.00 | 2.00 | heav |
| ATOM | 2102 | O | SER | 2007 | 54.937 | 57.734 | -24.799 | 1.00 | 10.02 | heav |
| ATOM | 2103 | N | GLY | 2008 | 53.873 | 55.958 | -24.115 | 1.00 | 4.21 | heav |
| ATOM | 2105 | CA | GLY | 2008 | 53.712 | 55.434 | -25.466 | 1.00 | 4.21 | heav |
| ATOM | 2106 | C | GLY | 2008 | 53.782 | 53.928 | -25.475 | 1.00 | 4.21 | heav |
| ATOM | 2107 | O | GLY | 2008 | 53.732 | 53.401 | -24.370 | 1.00 | 32.17 | heav |
| ATOM | 2108 | N | PRO | 2009 | 53.864 | 53.119 | -26.519 | 1.00 | 2.00 | heav |
| ATOM | 2109 | CD | PRO | 2009 | 54.180 | 53.500 | -27.874 | 1.00 | 10.59 | heav |
| ATOM | 2110 | CA | PRO | 2009 | 53.495 | 51.735 | -26.388 | 1.00 | 2.00 | heav |
| ATOM | 2111 | CB | PRO | 2009 | 53.156 | 51.419 | -27.789 | 1.00 | 10.59 | heav |
| ATOM | 2112 | CG | PRO | 2009 | 54.157 | 52.181 | -28.592 | 1.00 | 10.59 | heav |
| ATOM | 2113 | C | PRO | 2009 | 54.546 | 50.868 | -25.725 | 1.00 | 2.00 | heav |
| ATOM | 2114 | O | PRO | 2009 | 55.698 | 51.279 | -25.762 | 1.00 | 10.59 | heav |
| ATOM | 2115 | N | ASP | 2010 | 54.233 | 49.743 | -25.059 | 1.00 | 9.05 | heav |
| ATOM | 2117 | CA | ASP | 2010 | 55.253 | 48.859 | -24.529 | 1.00 | 9.05 | heav |
| ATOM | 2118 | CB | ASP | 2010 | 54.875 | 48.007 | -23.364 | 1.00 | 38.31 | heav |
| ATOM | 2119 | CG | ASP | 2010 | 53.879 | 48.499 | -22.308 | 1.00 | 38.31 | heav |
| ATOM | 2120 | OD1 | ASP | 2010 | 54.160 | 48.326 | -21.099 | 1.00 | 38.31 | heav |
| ATOM | 2121 | OD2 | ASP | 2010 | 52.779 | 48.972 | -22.670 | 1.00 | 38.31 | heav |
| ATOM | 2122 | C | ASP | 2010 | 55.643 | 47.795 | -25.539 | 1.00 | 9.05 | heav |
| ATOM | 2123 | O | ASP | 2010 | 56.600 | 47.027 | -25.327 | 1.00 | 38.31 | heav |
| ATOM | 2124 | N | LEU | 2011 | 54.890 | 47.610 | -26.619 | 1.00 | 7.77 | heav |
| ATOM | 2126 | CA | LEU | 2011 | 55.292 | 46.625 | -27.591 | 1.00 | 7.77 | heav |
| ATOM | 2127 | CB | LEU | 2011 | 54.546 | 45.303 | -27.345 | 1.00 | 7.87 | heav |
| ATOM | 2128 | CG | LEU | 2011 | 54.818 | 44.156 | -28.374 | 1.00 | 7.87 | heav |
| ATOM | 2129 | CD1 | LEU | 2011 | 56.105 | 43.385 | -28.173 | 1.00 | 7.87 | heav |
| ATOM | 2130 | CD2 | LEU | 2011 | 53.773 | 43.121 | -28.162 | 1.00 | 7.87 | heav |
| ATOM | 2131 | C | LEU | 2011 | 55.023 | 47.176 | -28.972 | 1.00 | 7.77 | heav |
| ATOM | 2132 | O | LEU | 2011 | 53.960 | 47.692 | -29.261 | 1.00 | 7.87 | heav |
| ATOM | 2133 | N | VAL | 2012 | 56.027 | 47.208 | -29.831 | 1.00 | 11.99 | heav |
| ATOM | 2135 | CA | VAL | 2012 | 55.922 | 47.718 | -31.184 | 1.00 | 11.99 | heav |
| ATOM | 2136 | CB | VAL | 2012 | 56.841 | 48.986 | -31.243 | 1.00 | 7.50 | heav |
| ATOM | 2137 | CG1 | VAL | 2012 | 56.792 | 49.594 | -32.628 | 1.00 | 7.50 | heav |
| ATOM | 2138 | CG2 | VAL | 2012 | 56.408 | 50.017 | -30.217 | 1.00 | 7.50 | heav |
| ATOM | 2139 | C | VAL | 2012 | 56.375 | 46.541 | -32.104 | 1.00 | 11.99 | heav |

| ATOM | 2140 | O | VAL | 2012 | 57.359 | 45.823 | -31.857 | 1.00 | 7.50 | heav |
|------|------|------|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 2141 | N | LYS | 2013 | 55.636 | 46.263 | -33.169 | 1.00 | 10.46 | heav |
| ATOM | 2143 | CA | LYS | 2013 | 55.916 | 45.156 | -34.083 | 1.00 | 10.46 | heav |
| ATOM | 2144 | CB | LYS | 2013 | 54.785 | 45.031 | -35.031 | 1.00 | 25.49 | heav |
| ATOM | 2145 | CG | LYS | 2013 | 54.064 | 43.716 | -35.229 | 1.00 | 25.49 | heav |
| ATOM | 2146 | CD | LYS | 2013 | 53.729 | 43.592 | -36.779 | 1.00 | 25.49 | heav |
| ATOM | 2147 | CE | LYS | 2013 | 54.863 | 43.382 | -37.867 | 1.00 | 25.49 | heav |
| ATOM | 2148 | NZ | LYS | 2013 | 55.568 | 42.075 | -37.781 | 1.00 | 25.49 | heav |
| ATOM | 2152 | C | LYS | 2013 | 57.176 | 45.468 | -34.870 | 1.00 | 10.46 | heav |
| ATOM | 2153 | O | LYS | 2013 | 57.367 | 46.646 | -35.176 | 1.00 | 25.49 | heav |
| ATOM | 2154 | N | PRO | 2014 | 58.094 | 44.621 | -35.294 | 1.00 | 2.00 | heav |
| ATOM | 2155 | CD | PRO | 2014 | 58.018 | 43.193 | -35.186 | 1.00 | 7.64 | heav |
| ATOM | 2156 | CA | PRO | 2014 | 59.294 | 45.081 | -35.992 | 1.00 | 2.00 | heav |
| ATOM | 2157 | CB | PRO | 2014 | 60.002 | 43.805 | -36.210 | 1.00 | 7.64 | heav |
| ATOM | 2158 | CG | PRO | 2014 | 59.495 | 42.917 | -35.092 | 1.00 | 7.64 | heav |
| ATOM | 2159 | C | PRO | 2014 | 59.066 | 45.929 | -37.255 | 1.00 | 2.00 | heav |
| ATOM | 2160 | O | PRO | 2014 | 57.964 | 46.004 | -37.797 | 1.00 | 7.64 | heav |
| ATOM | 2161 | N | SER | 2015 | 60.069 | 46.672 | -37.733 | 1.00 | 23.38 | heav |
| ATOM | 2163 | CA | SER | 2015 | 60.001 | 47.639 | -38.883 | 1.00 | 23.38 | heav |
| ATOM | 2164 | CB | SER | 2015 | 60.053 | 46.903 | -40.247 | 1.00 | 22.40 | heav |
| ATOM | 2165 | OG | SER | 2015 | 58.769 | 46.527 | -40.698 | 1.00 | 22.40 | heav |
| ATOM | 2167 | C | SER | 2015 | 58.802 | 48.657 | -38.936 | 1.00 | 23.38 | heav |
| ATOM | 2168 | O | SER | 2015 | 58.300 | 49.239 | -39.922 | 1.00 | 22.40 | heav |
| ATOM | 2169 | N | GLN | 2016 | 58.298 | 48.879 | -37.732 | 1.00 | 17.17 | heav |
| ATOM | 2171 | CA | GLN | 2016 | 57.308 | 49.873 | -37.503 | 1.00 | 17.17 | heav |
| ATOM | 2172 | CB | GLN | 2016 | 56.429 | 49.448 | -36.453 | 1.00 | 33.27 | heav |
| ATOM | 2173 | CG | GLN | 2016 | 55.376 | 48.570 | -36.927 | 1.00 | 33.27 | heav |
| ATOM | 2174 | CD | GLN | 2016 | 54.220 | 48.664 | -35.924 | 1.00 | 33.27 | heav |
| ATOM | 2175 | OE1 | GLN | 2016 | 54.230 | 48.307 | -34.712 | 1.00 | 33.27 | heav |
| ATOM | 2176 | NE2 | GLN | 2016 | 53.144 | 49.211 | -36.500 | 1.00 | 33.27 | heav |
| ATOM | 2179 | C | GLN | 2016 | 58.006 | 51.097 | -37.018 | 1.00 | 17.17 | heav |
| ATOM | 2180 | O | GLN | 2016 | 59.226 | 51.200 | -37.073 | 1.00 | 33.27 | heav |
| ATOM | 2181 | N | SER | 2017 | 57.205 | 51.985 | -36.458 | 1.00 | 12.33 | heav |
| ATOM | 2183 | CA | SER | 2017 | 57.655 | 53.206 | -35.853 | 1.00 | 12.33 | heav |
| ATOM | 2184 | CB | SER | 2017 | 57.138 | 54.389 | -36.597 | 1.00 | 15.91 | heav |
| ATOM | 2185 | OG | SER | 2017 | 57.123 | 53.997 | -37.946 | 1.00 | 15.91 | heav |
| ATOM | 2187 | C | SER | 2017 | 57.154 | 53.303 | -34.418 | 1.00 | 12.33 | heav |
| ATOM | 2188 | O | SER | 2017 | 56.036 | 52.934 | -33.990 | 1.00 | 15.91 | heav |
| ATOM | 2189 | N | LEU | 2018 | 58.129 | 53.818 | -33.683 | 1.00 | 11.68 | heav |
| ATOM | 2191 | CA | LEU | 2018 | 57.975 | 54.097 | -32.289 | 1.00 | 11.68 | heav |
| ATOM | 2192 | CB | LEU | 2018 | 59.236 | 53.761 | -31.542 | 1.00 | 11.28 | heav |
| ATOM | 2193 | CG | LEU | 2018 | 59.254 | 53.985 | -30.056 | 1.00 | 11.28 | heav |
| ATOM | 2194 | CD1 | LEU | 2018 | 58.070 | 53.235 | -29.485 | 1.00 | 11.28 | heav |
| ATOM | 2195 | CD2 | LEU | 2018 | 60.519 | 53.497 | -29.439 | 1.00 | 11.28 | heav |
| ATOM | 2196 | C | LEU | 2018 | 57.694 | 55.562 | -32.119 | 1.00 | 11.68 | heav |
| ATOM | 2197 | O | LEU | 2018 | 58.479 | 56.397 | -32.520 | 1.00 | 11.28 | heav |
| ATOM | 2198 | N | SER | 2019 | 56.583 | 55.911 | -31.555 | 1.00 | 13.96 | heav |
| ATOM | 2200 | CA | SER | 2019 | 56.394 | 57.295 | -31.221 | 1.00 | 13.96 | heav |
| ATOM | 2201 | CB | SER | 2019 | 55.212 | 57.834 | -31.976 | 1.00 | 37.87 | heav |
| ATOM | 2202 | OG | SER | 2019 | 55.019 | 59.212 | -31.631 | 1.00 | 37.87 | heav |
| ATOM | 2204 | C | SER | 2019 | 56.170 | 57.430 | -29.704 | 1.00 | 13.96 | heav |
| ATOM | 2205 | O | SER | 2019 | 55.255 | 56.775 | -29.196 | 1.00 | 37.87 | heav |
| ATOM | 2206 | N | LEU | 2020 | 57.017 | 58.170 | -28.946 | 1.00 | 14.84 | heav |
| ATOM | 2208 | CA | LEU | 2020 | 56.921 | 58.378 | -27.496 | 1.00 | 14.84 | heav |
| ATOM | 2209 | CB | LEU | 2020 | 58.190 | 57.887 | -26.768 | 1.00 | 2.00 | heav |
| ATOM | 2210 | CG | LEU | 2020 | 58.762 | 56.500 | -26.859 | 1.00 | 2.00 | heav |
| ATOM | 2211 | CD1 | LEU | 2020 | 59.941 | 56.434 | -25.963 | 1.00 | 2.00 | heav |
| ATOM | 2212 | CD2 | LEU | 2020 | 57.786 | 55.469 | -26.409 | 1.00 | 2.00 | heav |
| ATOM | 2213 | C | LEU | 2020 | 56.724 | 59.882 | -27.159 | 1.00 | 14.84 | heav |
| ATOM | 2214 | O | LEU | 2020 | 57.166 | 60.785 | -27.882 | 1.00 | 2.00 | heav |
| ATOM | 2215 | N | THR | 2021 | 56.036 | 60.174 | -26.059 | 1.00 | 2.00 | heav |
| ATOM | 2217 | CA | THR | 2021 | 55.749 | 61.523 | -25.621 | 1.00 | 2.00 | heav |
| ATOM | 2218 | CB | THR | 2021 | 54.245 | 61.756 | -25.440 | 1.00 | 8.49 | heav |
| ATOM | 2219 | OG1 | THR | 2021 | 53.633 | 61.642 | -26.701 | 1.00 | 8.49 | heav |
| ATOM | 2221 | CG2 | THR | 2021 | 53.897 | 63.116 | -25.007 | 1.00 | 8.49 | heav |
| ATOM | 2222 | C | THR | 2021 | 56.402 | 61.758 | -24.280 | 1.00 | 2.00 | heav |
| ATOM | 2223 | O | THR | 2021 | 56.330 | 60.904 | -23.397 | 1.00 | 8.49 | heav |

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| ATOM | 2224 | N   | CYS | 2022 | 57.096 | 62.882 | -24.100 | 1.00 | 2.00  | heav |
|------|------|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 2226 | CA  | CYS | 2022 | 57.640 | 63.325 | -22.805 | 1.00 | 2.00  | heav |
| ATOM | 2227 | C   | CYS | 2022 | 56.824 | 64.531 | -22.478 | 1.00 | 2.00  | heav |
| ATOM | 2228 | O   | CYS | 2022 | 56.771 | 65.403 | -23.317 | 1.00 | 2.00  | heav |
| ATOM | 2229 | CB  | CYS | 2022 | 59.027 | 63.793 | -22.884 | 1.00 | 2.00  | heav |
| ATOM | 2230 | SG  | CYS | 2022 | 59.657 | 64.097 | -21.256 | 1.00 | 9.51  | heav |
| ATOM | 2231 | N   | THR | 2023 | 56.129 | 64.495 | -21.338 | 1.00 | 9.51  | heav |
| ATOM | 2233 | CA  | THR | 2023 | 55.100 | 65.456 | -20.841 | 1.00 | 7.69  | heav |
| ATOM | 2234 | CB  | THR | 2023 | 53.827 | 64.742 | -20.340 | 1.00 | 7.69  | heav |
| ATOM | 2235 | OG1 | THR | 2023 | 53.706 | 63.571 | -21.148 | 1.00 | 7.69  | heav |
| ATOM | 2237 | CG2 | THR | 2023 | 52.574 | 65.538 | -20.412 | 1.00 | 9.51  | heav |
| ATOM | 2238 | C   | THR | 2023 | 55.672 | 66.205 | -19.652 | 1.00 | 7.69  | heav |
| ATOM | 2239 | O   | THR | 2023 | 55.955 | 65.608 | -18.624 | 1.00 | 6.47  | heav |
| ATOM | 2240 | N   | VAL | 2024 | 55.894 | 67.493 | -19.750 | 1.00 | 6.47  | heav |
| ATOM | 2242 | CA  | VAL | 2024 | 56.628 | 68.213 | -18.744 | 1.00 | 8.81  | heav |
| ATOM | 2243 | CB  | VAL | 2024 | 57.605 | 69.178 | -19.433 | 1.00 | 8.81  | heav |
| ATOM | 2244 | CG1 | VAL | 2024 | 58.289 | 70.035 | -18.415 | 1.00 | 8.81  | heav |
| ATOM | 2245 | CG2 | VAL | 2024 | 58.694 | 68.419 | -20.148 | 1.00 | 6.47  | heav |
| ATOM | 2246 | C   | VAL | 2024 | 55.664 | 68.964 | -17.864 | 1.00 | 8.81  | heav |
| ATOM | 2247 | O   | VAL | 2024 | 54.874 | 69.768 | -18.296 | 1.00 | 9.60  | heav |
| ATOM | 2248 | N   | THR | 2025 | 55.786 | 68.796 | -16.591 | 1.00 | 9.60  | heav |
| ATOM | 2250 | CA  | THR | 2025 | 54.897 | 69.363 | -15.625 | 1.00 | 19.02 | heav |
| ATOM | 2251 | CB  | THR | 2025 | 54.194 | 68.337 | -14.851 | 1.00 | 19.02 | heav |
| ATOM | 2252 | OG1 | THR | 2025 | 54.439 | 67.007 | -15.409 | 1.00 | 19.02 | heav |
| ATOM | 2254 | CG2 | THR | 2025 | 52.777 | 68.784 | -14.815 | 1.00 | 9.60  | heav |
| ATOM | 2255 | C   | THR | 2025 | 55.612 | 70.193 | -14.600 | 1.00 | 19.02 | heav |
| ATOM | 2256 | O   | THR | 2025 | 56.711 | 69.863 | -14.148 | 1.00 | 27.85 | heav |
| ATOM | 2257 | N   | GLY | 2026 | 54.991 | 71.298 | -14.181 | 1.00 | 27.85 | heav |
| ATOM | 2259 | CA  | GLY | 2026 | 55.626 | 72.198 | -13.234 | 1.00 | 27.85 | heav |
| ATOM | 2260 | C   | GLY | 2026 | 56.744 | 73.042 | -13.844 | 1.00 | 22.86 | heav |
| ATOM | 2261 | O   | GLY | 2026 | 57.465 | 73.731 | -13.122 | 1.00 | 21.26 | heav |
| ATOM | 2262 | N   | TYR | 2027 | 56.954 | 73.048 | -15.163 | 1.00 | 21.26 | heav |
| ATOM | 2264 | CA  | TYR | 2027 | 58.042 | 73.812 | -15.846 | 1.00 | 19.01 | heav |
| ATOM | 2265 | CB  | TYR | 2027 | 59.412 | 73.150 | -15.723 | 1.00 | 19.01 | heav |
| ATOM | 2266 | CG  | TYR | 2027 | 60.680 | 73.921 | -16.091 | 1.00 | 19.01 | heav |
| ATOM | 2267 | CD1 | TYR | 2027 | 61.267 | 74.673 | -15.087 | 1.00 | 19.01 | heav |
| ATOM | 2268 | CE1 | TYR | 2027 | 62.415 | 75.356 | -15.333 | 1.00 | 19.01 | heav |
| ATOM | 2269 | CD2 | TYR | 2027 | 61.223 | 73.833 | -17.353 | 1.00 | 19.01 | heav |
| ATOM | 2270 | CE2 | TYR | 2027 | 62.365 | 74.511 | -17.594 | 1.00 | 19.01 | heav |
| ATOM | 2271 | CZ  | TYR | 2027 | 62.951 | 75.261 | -16.591 | 1.00 | 19.01 | heav |
| ATOM | 2272 | OH  | TYR | 2027 | 64.167 | 75.928 | -16.816 | 1.00 | 19.01 | heav |
| ATOM | 2274 | C   | TYR | 2027 | 57.720 | 73.850 | -17.345 | 1.00 | 21.26 | heav |
| ATOM | 2275 | O   | TYR | 2027 | 56.999 | 72.995 | -17.890 | 1.00 | 19.01 | heav |
| ATOM | 2276 | N   | SER | 2028 | 58.285 | 74.805 | -18.065 | 1.00 | 10.40 | heav |
| ATOM | 2278 | CA  | SER | 2028 | 57.836 | 75.014 | -19.420 | 1.00 | 10.40 | heav |
| ATOM | 2279 | CB  | SER | 2028 | 57.450 | 76.491 | -19.563 | 1.00 | 19.94 | heav |
| ATOM | 2280 | OG  | SER | 2028 | 57.291 | 76.794 | -20.946 | 1.00 | 19.94 | heav |
| ATOM | 2282 | C   | SER | 2028 | 58.833 | 74.620 | -20.481 | 1.00 | 10.40 | heav |
| ATOM | 2283 | O   | SER | 2028 | 59.984 | 75.033 | -20.354 | 1.00 | 19.94 | heav |
| ATOM | 2284 | N   | ILE | 2029 | 58.377 | 73.966 | -21.565 | 1.00 | 13.03 | heav |
| ATOM | 2286 | CA  | ILE | 2029 | 59.338 | 73.484 | -22.572 | 1.00 | 13.03 | heav |
| ATOM | 2287 | CB  | ILE | 2029 | 58.714 | 72.549 | -23.739 | 1.00 | 22.94 | heav |
| ATOM | 2288 | CG2 | ILE | 2029 | 58.421 | 71.146 | -23.223 | 1.00 | 22.94 | heav |
| ATOM | 2289 | CG1 | ILE | 2029 | 57.506 | 73.164 | -24.346 | 1.00 | 22.94 | heav |
| ATOM | 2290 | CD1 | ILE | 2029 | 57.896 | 73.627 | -25.770 | 1.00 | 22.94 | heav |
| ATOM | 2291 | C   | ILE | 2029 | 60.093 | 74.608 | -23.268 | 1.00 | 13.03 | heav |
| ATOM | 2292 | O   | ILE | 2029 | 61.202 | 74.465 | -23.799 | 1.00 | 22.94 | heav |
| ATOM | 2293 | N   | THR | 2030 | 59.430 | 75.764 | -23.249 | 1.00 | 18.46 | heav |
| ATOM | 2295 | CA  | THR | 2030 | 60.052 | 76.982 | -23.767 | 1.00 | 18.46 | heav |
| ATOM | 2296 | CB  | THR | 2030 | 58.981 | 77.994 | -24.140 | 1.00 | 16.39 | heav |
| ATOM | 2297 | OG1 | THR | 2030 | 57.896 | 77.926 | -23.194 | 1.00 | 16.39 | heav |
| ATOM | 2299 | CG2 | THR | 2030 | 58.584 | 77.740 | -25.594 | 1.00 | 16.39 | heav |
| ATOM | 2300 | C   | THR | 2030 | 61.026 | 77.610 | -22.779 | 1.00 | 18.46 | heav |
| ATOM | 2301 | O   | THR | 2030 | 61.841 | 78.458 | -23.124 | 1.00 | 16.39 | heav |
| ATOM | 2302 | N   | SER | 2031 | 60.999 | 77.363 | -21.479 | 1.00 | 19.26 | heav |
| ATOM | 2304 | CA  | SER | 2031 | 62.233 | 77.704 | -20.755 | 1.00 | 19.26 | heav |
| ATOM | 2305 | CB  | SER | 2031 | 61.980 | 77.917 | -19.323 | 1.00 | 33.85 | heav |

| ATOM | 2306 | OG | SER | 2031 | 61.008 | 78.926 | -19.110 | 1.00 | 33.85 | heav |
|------|------|------|------|------|--------|--------|---------|------|-------|------|
| ATOM | 2308 | C | SER | 2031 | 63.182 | 76.505 | -20.884 | 1.00 | 19.26 | heav |
| ATOM | 2309 | O | SER | 2031 | 62.891 | 75.527 | -21.595 | 1.00 | 33.85 | heav |
| ATOM | 2310 | N | GLY | 2032 | 64.319 | 76.434 | -20.191 | 1.00 | 30.04 | heav |
| ATOM | 2312 | CA | GLY | 2032 | 65.171 | 75.231 | -20.351 | 1.00 | 30.04 | heav |
| ATOM | 2313 | C | GLY | 2032 | 65.913 | 75.258 | -21.672 | 1.00 | 30.04 | heav |
| ATOM | 2314 | O | GLY | 2032 | 65.339 | 75.368 | -22.762 | 1.00 | 13.48 | heav |
| ATOM | 2315 | N | TYR | 2033 | 67.243 | 75.261 | -21.571 | 1.00 | 12.16 | heav |
| ATOM | 2317 | CA | TYR | 2033 | 68.074 | 75.243 | -22.761 | 1.00 | 12.16 | heav |
| ATOM | 2318 | CB | TYR | 2033 | 69.476 | 75.234 | -22.243 | 1.00 | 15.95 | heav |
| ATOM | 2319 | CG | TYR | 2033 | 70.559 | 74.895 | -23.214 | 1.00 | 15.95 | heav |
| ATOM | 2320 | CD1 | TYR | 2033 | 70.996 | 75.765 | -24.177 | 1.00 | 15.95 | heav |
| ATOM | 2321 | CE1 | TYR | 2033 | 71.970 | 75.341 | -25.084 | 1.00 | 15.95 | heav |
| ATOM | 2322 | CD2 | TYR | 2033 | 71.086 | 73.652 | -23.147 | 1.00 | 15.95 | heav |
| ATOM | 2323 | CE2 | TYR | 2033 | 72.032 | 73.242 | -24.038 | 1.00 | 15.95 | heav |
| ATOM | 2324 | CZ | TYR | 2033 | 72.476 | 74.061 | -25.022 | 1.00 | 15.95 | heav |
| ATOM | 2325 | OH | TYR | 2033 | 73.294 | 73.513 | -26.016 | 1.00 | 15.95 | heav |
| ATOM | 2327 | C | TYR | 2033 | 67.717 | 74.039 | -23.658 | 1.00 | 12.16 | heav |
| ATOM | 2328 | O | TYR | 2033 | 67.307 | 74.242 | -24.799 | 1.00 | 15.95 | heav |
| ATOM | 2329 | N | SER | 2034 | 67.666 | 72.789 | -23.211 | 1.00 | 2.00 | heav |
| ATOM | 2331 | CA | SER | 2034 | 67.436 | 71.708 | -24.119 | 1.00 | 2.00 | heav |
| ATOM | 2332 | CB | SER | 2034 | 68.725 | 71.129 | -24.557 | 1.00 | 14.24 | heav |
| ATOM | 2333 | OG | SER | 2034 | 69.295 | 71.863 | -25.586 | 1.00 | 14.24 | heav |
| ATOM | 2335 | C | SER | 2034 | 66.622 | 70.538 | -23.675 | 1.00 | 2.00 | heav |
| ATOM | 2336 | O | SER | 2034 | 67.045 | 69.869 | -22.733 | 1.00 | 14.24 | heav |
| ATOM | 2337 | N | TRP | 2035 | 65.591 | 70.061 | -24.348 | 1.00 | 5.71 | heav |
| ATOM | 2339 | CA | TRP | 2035 | 64.933 | 68.864 | -23.879 | 1.00 | 5.71 | heav |
| ATOM | 2340 | CB | TRP | 2035 | 63.503 | 69.218 | -24.084 | 1.00 | 2.00 | heav |
| ATOM | 2341 | CG | TRP | 2035 | 63.086 | 70.395 | -23.233 | 1.00 | 2.00 | heav |
| ATOM | 2342 | CD2 | TRP | 2035 | 62.720 | 70.285 | -21.948 | 1.00 | 2.00 | heav |
| ATOM | 2343 | CE2 | TRP | 2035 | 62.521 | 71.604 | -21.629 | 1.00 | 2.00 | heav |
| ATOM | 2344 | CE3 | TRP | 2035 | 62.544 | 69.287 | -21.017 | 1.00 | 2.00 | heav |
| ATOM | 2345 | CD1 | TRP | 2035 | 63.106 | 71.663 | -23.703 | 1.00 | 2.00 | heav |
| ATOM | 2346 | NE1 | TRP | 2035 | 62.762 | 72.372 | -22.698 | 1.00 | 2.00 | heav |
| ATOM | 2348 | CZ2 | TRP | 2035 | 62.132 | 71.955 | -20.349 | 1.00 | 2.00 | heav |
| ATOM | 2349 | CZ3 | TRP | 2035 | 62.153 | 69.642 | -19.738 | 1.00 | 2.00 | heav |
| ATOM | 2350 | CH2 | TRP | 2035 | 61.948 | 70.966 | -19.408 | 1.00 | 2.00 | heav |
| ATOM | 2351 | C | TRP | 2035 | 65.428 | 67.552 | -24.524 | 1.00 | 5.71 | heav |
| ATOM | 2352 | O | TRP | 2035 | 65.480 | 67.406 | -25.727 | 1.00 | 2.00 | heav |
| ATOM | 2353 | N | HIS | 2036 | 65.923 | 66.539 | -23.806 | 1.00 | 12.07 | heav |
| ATOM | 2355 | CA | HIS | 2036 | 66.584 | 65.338 | -24.363 | 1.00 | 12.07 | heav |
| ATOM | 2356 | CB | HIS | 2036 | 67.852 | 65.019 | -23.598 | 1.00 | 2.00 | heav |
| ATOM | 2357 | CG | HIS | 2036 | 68.980 | 65.993 | -23.790 | 1.00 | 2.00 | heav |
| ATOM | 2358 | CD2 | HIS | 2036 | 70.045 | 65.689 | -24.530 | 1.00 | 2.00 | heav |
| ATOM | 2359 | ND1 | HIS | 2036 | 69.145 | 67.222 | -23.353 | 1.00 | 2.00 | heav |
| ATOM | 2361 | CE1 | HIS | 2036 | 70.264 | 67.627 | -23.824 | 1.00 | 2.00 | heav |
| ATOM | 2362 | NE2 | HIS | 2036 | 70.791 | 66.702 | -24.531 | 1.00 | 2.00 | heav |
| ATOM | 2364 | C | HIS | 2036 | 65.927 | 63.960 | -24.518 | 1.00 | 12.07 | heav |
| ATOM | 2365 | O | HIS | 2036 | 65.106 | 63.629 | -23.697 | 1.00 | 2.00 | heav |
| ATOM | 2366 | N | TRP | 2037 | 66.233 | 63.094 | -25.487 | 1.00 | 2.00 | heav |
| ATOM | 2368 | CA | TRP | 2037 | 65.895 | 61.686 | -25.379 | 1.00 | 2.00 | heav |
| ATOM | 2369 | CB | TRP | 2037 | 65.074 | 61.284 | -26.576 | 1.00 | 2.00 | heav |
| ATOM | 2370 | CG | TRP | 2037 | 63.611 | 61.680 | -26.460 | 1.00 | 2.00 | heav |
| ATOM | 2371 | CD2 | TRP | 2037 | 62.592 | 61.001 | -25.781 | 1.00 | 2.00 | heav |
| ATOM | 2372 | CE2 | TRP | 2037 | 61.532 | 61.846 | -25.999 | 1.00 | 2.00 | heav |
| ATOM | 2373 | CE3 | TRP | 2037 | 62.373 | 59.848 | -25.028 | 1.00 | 2.00 | heav |
| ATOM | 2374 | CD1 | TRP | 2037 | 63.200 | 62.828 | -27.038 | 1.00 | 2.00 | heav |
| ATOM | 2375 | NE1 | TRP | 2037 | 61.942 | 62.881 | -26.733 | 1.00 | 2.00 | heav |
| ATOM | 2377 | CZ2 | TRP | 2037 | 60.300 | 61.578 | -25.503 | 1.00 | 2.00 | heav |
| ATOM | 2378 | CZ3 | TRP | 2037 | 61.128 | 59.596 | -24.536 | 1.00 | 2.00 | heav |
| ATOM | 2379 | CH2 | TRP | 2037 | 60.107 | 60.451 | -24.770 | 1.00 | 2.00 | heav |
| ATOM | 2380 | C | TRP | 2037 | 67.159 | 60.797 | -25.244 | 1.00 | 2.00 | heav |
| ATOM | 2381 | O | TRP | 2037 | 68.130 | 60.904 | -25.977 | 1.00 | 2.00 | heav |
| ATOM | 2382 | N | ILE | 2038 | 67.300 | 59.942 | -24.242 | 1.00 | 3.71 | heav |
| ATOM | 2384 | CA | ILE | 2038 | 68.456 | 59.060 | -23.961 | 1.00 | 3.71 | heav |
| ATOM | 2385 | CB | ILE | 2038 | 69.193 | 59.364 | -22.596 | 1.00 | 2.00 | heav |
| ATOM | 2386 | CG2 | ILE | 2038 | 70.349 | 58.416 | -22.290 | 1.00 | 2.00 | heav |

| ATOM | 2387 | CG1 | ILE | 2038 | 69.750 | 60.730 | -22.647 | 1.00 | 2.00 | heav |
|------|------|-----|-----|------|--------|--------|---------|------|------|------|
| ATOM | 2388 | CD1 | ILE | 2038 | 69.027 | 61.682 | -21.692 | 1.00 | 2.00 | heav |
| ATOM | 2389 | C | ILE | 2038 | 67.818 | 57.682 | -23.789 | 1.00 | 3.71 | heav |
| ATOM | 2390 | O | ILE | 2038 | 66.764 | 57.576 | -23.176 | 1.00 | 2.00 | heav |
| ATOM | 2391 | N | ARG | 2039 | 68.339 | 56.599 | -24.312 | 1.00 | 5.17 | heav |
| ATOM | 2393 | CA | ARG | 2039 | 67.787 | 55.299 | -23.993 | 1.00 | 5.17 | heav |
| ATOM | 2394 | CB | ARG | 2039 | 67.292 | 54.584 | -25.223 | 1.00 | 7.95 | heav |
| ATOM | 2395 | CG | ARG | 2039 | 68.321 | 54.235 | -26.245 | 1.00 | 7.95 | heav |
| ATOM | 2396 | CD | ARG | 2039 | 67.638 | 53.513 | -27.342 | 1.00 | 7.95 | heav |
| ATOM | 2397 | NE | ARG | 2039 | 68.489 | 53.426 | -28.506 | 1.00 | 7.95 | heav |
| ATOM | 2399 | CZ | ARG | 2039 | 68.055 | 52.867 | -29.625 | 1.00 | 7.95 | heav |
| ATOM | 2400 | NH1 | ARG | 2039 | 66.810 | 52.351 | -29.750 | 1.00 | 7.95 | heav |
| ATOM | 2403 | NH2 | ARG | 2039 | 68.896 | 52.848 | -30.638 | 1.00 | 7.95 | heav |
| ATOM | 2406 | C | ARG | 2039 | 68.761 | 54.365 | -23.280 | 1.00 | 5.17 | heav |
| ATOM | 2407 | O | ARG | 2039 | 69.957 | 54.537 | -23.371 | 1.00 | 7.95 | heav |
| ATOM | 2408 | N | GLN | 2040 | 68.326 | 53.375 | -22.537 | 1.00 | 2.00 | heav |
| ATOM | 2410 | CA | GLN | 2040 | 69.184 | 52.447 | -21.831 | 1.00 | 2.00 | heav |
| ATOM | 2411 | CB | GLN | 2040 | 68.923 | 52.676 | -20.382 | 1.00 | 7.47 | heav |
| ATOM | 2412 | CG | GLN | 2040 | 69.553 | 51.659 | -19.543 | 1.00 | 7.47 | heav |
| ATOM | 2413 | CD | GLN | 2040 | 69.805 | 52.171 | -18.161 | 1.00 | 7.47 | heav |
| ATOM | 2414 | OE1 | GLN | 2040 | 68.850 | 52.443 | -17.464 | 1.00 | 7.47 | heav |
| ATOM | 2415 | NE2 | GLN | 2040 | 71.001 | 52.365 | -17.638 | 1.00 | 7.47 | heav |
| ATOM | 2418 | C | GLN | 2040 | 68.950 | 51.008 | -22.241 | 1.00 | 2.00 | heav |
| ATOM | 2419 | O | GLN | 2040 | 67.908 | 50.422 | -22.077 | 1.00 | 7.47 | heav |
| ATOM | 2420 | N | PHE | 2041 | 69.895 | 50.375 | -22.841 | 1.00 | 2.00 | heav |
| ATOM | 2422 | CA | PHE | 2041 | 69.664 | 49.031 | -23.295 | 1.00 | 2.00 | heav |
| ATOM | 2423 | CB | PHE | 2041 | 70.677 | 48.689 | -24.349 | 1.00 | 2.00 | heav |
| ATOM | 2424 | CG | PHE | 2041 | 70.672 | 49.568 | -25.577 | 1.00 | 2.00 | heav |
| ATOM | 2425 | CD1 | PHE | 2041 | 69.911 | 49.229 | -26.661 | 1.00 | 2.00 | heav |
| ATOM | 2426 | CD2 | PHE | 2041 | 71.516 | 50.649 | -25.635 | 1.00 | 2.00 | heav |
| ATOM | 2427 | CE1 | PHE | 2041 | 69.996 | 49.966 | -27.809 | 1.00 | 2.00 | heav |
| ATOM | 2428 | CE2 | PHE | 2041 | 71.612 | 51.392 | -26.792 | 1.00 | 2.00 | heav |
| ATOM | 2429 | CZ | PHE | 2041 | 70.845 | 51.031 | -27.877 | 1.00 | 2.00 | heav |
| ATOM | 2430 | C | PHE | 2041 | 69.754 | 48.047 | -22.156 | 1.00 | 2.00 | heav |
| ATOM | 2431 | O | PHE | 2041 | 70.443 | 48.363 | -21.209 | 1.00 | 2.00 | heav |
| ATOM | 2432 | N | PRO | 2042 | 69.149 | 46.862 | -22.074 | 1.00 | 14.44 | heav |
| ATOM | 2433 | CD | PRO | 2042 | 68.038 | 46.440 | -22.909 | 1.00 | 16.99 | heav |
| ATOM | 2434 | CA | PRO | 2042 | 69.484 | 45.740 | -21.176 | 1.00 | 14.44 | heav |
| ATOM | 2435 | CB | PRO | 2042 | 68.871 | 44.587 | -21.858 | 1.00 | 16.99 | heav |
| ATOM | 2436 | CG | PRO | 2042 | 68.514 | 45.058 | -23.239 | 1.00 | 16.99 | heav |
| ATOM | 2437 | C | PRO | 2042 | 70.957 | 45.567 | -20.966 | 1.00 | 14.44 | heav |
| ATOM | 2438 | O | PRO | 2042 | 71.678 | 45.680 | -21.939 | 1.00 | 16.99 | heav |
| ATOM | 2439 | N | GLY | 2043 | 71.554 | 45.313 | -19.815 | 1.00 | 7.45 | heav |
| ATOM | 2441 | CA | GLY | 2043 | 73.037 | 45.350 | -19.756 | 1.00 | 7.45 | heav |
| ATOM | 2442 | C | GLY | 2043 | 73.529 | 46.681 | -19.189 | 1.00 | 7.45 | heav |
| ATOM | 2443 | O | GLY | 2043 | 74.565 | 46.804 | -18.561 | 1.00 | 21.29 | heav |
| ATOM | 2444 | N | ASN | 2044 | 72.696 | 47.678 | -19.405 | 1.00 | 2.00 | heav |
| ATOM | 2446 | CA | ASN | 2044 | 72.700 | 49.012 | -18.879 | 1.00 | 2.00 | heav |
| ATOM | 2447 | CB | ASN | 2044 | 72.831 | 48.878 | -17.394 | 1.00 | 29.83 | heav |
| ATOM | 2448 | CG | ASN | 2044 | 71.483 | 48.312 | -16.914 | 1.00 | 29.83 | heav |
| ATOM | 2449 | OD1 | ASN | 2044 | 70.401 | 48.445 | -17.481 | 1.00 | 29.83 | heav |
| ATOM | 2450 | ND2 | ASN | 2044 | 71.341 | 47.566 | -15.863 | 1.00 | 29.83 | heav |
| ATOM | 2453 | C | ASN | 2044 | 73.602 | 50.069 | -19.419 | 1.00 | 2.00 | heav |
| ATOM | 2454 | O | ASN | 2044 | 73.797 | 51.140 | -18.889 | 1.00 | 29.83 | heav |
| ATOM | 2455 | N | LYS | 2045 | 73.863 | 49.805 | -20.675 | 1.00 | 2.00 | heav |
| ATOM | 2457 | CA | LYS | 2045 | 74.567 | 50.700 | -21.551 | 1.00 | 2.00 | heav |
| ATOM | 2458 | CB | LYS | 2045 | 74.990 | 49.859 | -22.766 | 1.00 | 34.48 | heav |
| ATOM | 2459 | CG | LYS | 2045 | 75.734 | 50.558 | -23.910 | 1.00 | 34.48 | heav |
| ATOM | 2460 | CD | LYS | 2045 | 75.413 | 50.081 | -25.399 | 1.00 | 34.48 | heav |
| ATOM | 2461 | CE | LYS | 2045 | 75.704 | 51.233 | -26.485 | 1.00 | 34.48 | heav |
| ATOM | 2462 | NZ | LYS | 2045 | 75.706 | 50.869 | -27.925 | 1.00 | 34.48 | heav |
| ATOM | 2466 | C | LYS | 2045 | 73.565 | 51.803 | -21.865 | 1.00 | 2.00 | heav |
| ATOM | 2467 | O | LYS | 2045 | 72.416 | 51.532 | -22.184 | 1.00 | 34.48 | heav |
| ATOM | 2468 | N | LEU | 2046 | 73.916 | 53.066 | -21.678 | 1.00 | 12.45 | heav |
| ATOM | 2470 | CA | LEU | 2046 | 73.055 | 54.203 | -22.004 | 1.00 | 12.45 | heav |
| ATOM | 2471 | CB | LEU | 2046 | 73.129 | 55.268 | -20.966 | 1.00 | 7.07 | heav |
| ATOM | 2472 | CG | LEU | 2046 | 72.425 | 55.186 | -19.662 | 1.00 | 7.07 | heav |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2473 | CD1 | LEU | 2046 | 73.294 | 55.814 | -18.651 | 1.00 | 7.07 | heav |
| ATOM | 2474 | CD2 | LEU | 2046 | 71.135 | 55.945 | -19.689 | 1.00 | 7.07 | heav |
| ATOM | 2475 | C | LEU | 2046 | 73.468 | 54.856 | -23.293 | 1.00 | 12.45 | heav |
| ATOM | 2476 | O | LEU | 2046 | 74.650 | 55.031 | -23.520 | 1.00 | 7.07 | heav |
| ATOM | 2477 | N | GLU | 2047 | 72.563 | 55.264 | -24.160 | 1.00 | 2.00 | heav |
| ATOM | 2479 | CA | GLU | 2047 | 72.877 | 55.947 | -25.400 | 1.00 | 2.00 | heav |
| ATOM | 2480 | CB | GLU | 2047 | 72.612 | 55.005 | -26.596 | 1.00 | 14.10 | heav |
| ATOM | 2481 | CG | GLU | 2047 | 72.898 | 55.636 | -28.002 | 1.00 | 14.10 | heav |
| ATOM | 2482 | CD | GLU | 2047 | 72.375 | 54.840 | -29.176 | 1.00 | 14.10 | heav |
| ATOM | 2483 | OE1 | GLU | 2047 | 73.135 | 54.598 | -30.117 | 1.00 | 14.10 | heav |
| ATOM | 2484 | OE2 | GLU | 2047 | 71.200 | 54.480 | -29.145 | 1.00 | 14.10 | heav |
| ATOM | 2485 | C | GLU | 2047 | 72.073 | 57.244 | -25.565 | 1.00 | 2.00 | heav |
| ATOM | 2486 | O | GLU | 2047 | 70.838 | 57.317 | -25.497 | 1.00 | 14.10 | heav |
| ATOM | 2487 | N | TRP | 2048 | 72.805 | 58.328 | -25.736 | 1.00 | 10.56 | heav |
| ATOM | 2489 | CA | TRP | 2048 | 72.120 | 59.563 | -25.988 | 1.00 | 10.56 | heav |
| ATOM | 2490 | CB | TRP | 2048 | 73.074 | 60.735 | -25.892 | 1.00 | 2.00 | heav |
| ATOM | 2491 | CG | TRP | 2048 | 72.512 | 62.079 | -26.347 | 1.00 | 2.00 | heav |
| ATOM | 2492 | CD2 | TRP | 2048 | 72.827 | 62.747 | -27.486 | 1.00 | 2.00 | heav |
| ATOM | 2493 | CE2 | TRP | 2048 | 72.040 | 63.863 | -27.388 | 1.00 | 2.00 | heav |
| ATOM | 2494 | CE3 | TRP | 2048 | 73.626 | 62.584 | -28.570 | 1.00 | 2.00 | heav |
| ATOM | 2495 | CD1 | TRP | 2048 | 71.585 | 62.754 | -25.616 | 1.00 | 2.00 | heav |
| ATOM | 2496 | NE1 | TRP | 2048 | 71.323 | 63.831 | -26.298 | 1.00 | 2.00 | heav |
| ATOM | 2498 | CZ2 | TRP | 2048 | 72.000 | 64.843 | -28.312 | 1.00 | 2.00 | heav |
| ATOM | 2499 | CZ3 | TRP | 2048 | 73.592 | 63.568 | -29.542 | 1.00 | 2.00 | heav |
| ATOM | 2500 | CH2 | TRP | 2048 | 72.790 | 64.685 | -29.412 | 1.00 | 2.00 | heav |
| ATOM | 2501 | C | TRP | 2048 | 71.489 | 59.538 | -27.385 | 1.00 | 10.56 | heav. |
| ATOM | 2502 | O | TRP | 2048 | 72.175 | 59.179 | -28.344 | 1.00 | 2.00 | heav |
| ATOM | 2503 | N | MET | 2049 | 70.232 | 59.964 | -27.558 | 1.00 | 2.00 | heav |
| ATOM | 2505 | CA | MET | 2049 | 69.600 | 59.877 | -28.843 | 1.00 | 2.00 | heav |
| ATOM | 2506 | CB | MET | 2049 | 68.265 | 59.264 | -28.693 | 1.00 | 10.81 | heav |
| ATOM | 2507 | CG | MET | 2049 | 68.384 | 57.777 | -28.490 | 1.00 | 10.81 | heav |
| ATOM | 2508 | SD | MET | 2049 | 66.688 | 57.233 | -28.304 | 1.00 | 10.81 | heav |
| ATOM | 2509 | CE | MET | 2049 | 66.063 | 57.073 | -29.946 | 1.00 | 10.81 | heav |
| ATOM | 2510 | C | MET | 2049 | 69.462 | 61.156 | -29.572 | 1.00 | 2.00 | heav |
| ATOM | 2511 | O | MET | 2049 | 69.538 | 61.166 | -30.780 | 1.00 | 10.81 | heav |
| ATOM | 2512 | N | GLY | 2050 | 69.315 | 62.280 | -28.924 | 1.00 | 2.00 | heav |
| ATOM | 2514 | CA | GLY | 2050 | 69.186 | 63.562 | -29.592 | 1.00 | 2.00 | heav |
| ATOM | 2515 | C | GLY | 2050 | 68.475 | 64.571 | -28.724 | 1.00 | 2.00 | heav |
| ATOM | 2516 | O | GLY | 2050 | 68.114 | 64.301 | -27.591 | 1.00 | 2.00 | heav |
| ATOM | 2517 | N | TYR | 2051 | 68.227 | 65.773 | -29.181 | 1.00 | 2.00 | heav |
| ATOM | 2519 | CA | TYR | 2051 | 67.543 | 66.770 | -28.384 | 1.00 | 2.00 | heav |
| ATOM | 2520 | CB | TYR | 2051 | 68.495 | 67.414 | -27.414 | 1.00 | 2.00 | heav |
| ATOM | 2521 | CG | TYR | 2051 | 69.651 | 68.252 | -27.939 | 1.00 | 2.00 | heav |
| ATOM | 2522 | CD1 | TYR | 2051 | 70.907 | 67.723 | -27.942 | 1.00 | 2.00 | heav |
| ATOM | 2523 | CE1 | TYR | 2051 | 71.969 | 68.506 | -28.303 | 1.00 | 2.00 | heav |
| ATOM | 2524 | CD2 | TYR | 2051 | 69.471 | 69.579 | -28.323 | 1.00 | 2.00 | heav |
| ATOM | 2525 | CE2 | TYR | 2051 | 70.534 | 70.367 | -28.688 | 1.00 | 2.00 | heav |
| ATOM | 2526 | CZ | TYR | 2051 | 71.775 | 69.809 | -28.665 | 1.00 | 2.00 | heav |
| ATOM | 2527 | OH | TYR | 2051 | 72.847 | 70.560 | -28.999 | 1.00 | 2.00 | heav |
| ATOM | 2529 | C | TYR | 2051 | 66.910 | 67.858 | -29.213 | 1.00 | 2.00 | heav |
| ATOM | 2530 | O | TYR | 2051 | 67.355 | 68.084 | -30.324 | 1.00 | 2.00 | heav |
| ATOM | 2531 | N | ILE | 2052 | 65.895 | 68.524 | -28.695 | 1.00 | 2.00 | heav |
| ATOM | 2533 | CA | ILE | 2052 | 65.343 | 69.679 | -29.316 | 1.00 | 2.00 | heav |
| ATOM | 2534 | CB | ILE | 2052 | 63.779 | 69.511 | -29.410 | 1.00 | 5.92 | heav |
| ATOM | 2535 | CG2 | ILE | 2052 | 63.043 | 69.476 | -28.083 | 1.00 | 5.92 | heav |
| ATOM | 2536 | CG1 | ILE | 2052 | 63.309 | 70.692 | -30.242 | 1.00 | 5.92 | heav |
| ATOM | 2537 | CD1 | ILE | 2052 | 61.962 | 70.593 | -30.890 | 1.00 | 5.92 | heav |
| ATOM | 2538 | C | ILE | 2052 | 65.805 | 70.888 | -28.489 | 1.00 | 2.00 | heav |
| ATOM | 2539 | O | ILE | 2052 | 65.662 | 70.945 | -27.281 | 1.00 | 5.92 | heav. |
| ATOM | 2540 | N | HIS | 2053 | 66.511 | 71.843 | -29.046 | 1.00 | 2.00 | heav |
| ATOM | 2542 | CA | HIS | 2053 | 66.943 | 73.001 | -28.307 | 1.00 | 2.00 | heav |
| ATOM | 2543 | CB | HIS | 2053 | 67.949 | 73.602 | -29.143 | 1.00 | 14.09 | heav |
| ATOM | 2544 | CG | HIS | 2053 | 68.463 | 74.943 | -28.727 | 1.00 | 14.09 | heav |
| ATOM | 2545 | CD2 | HIS | 2053 | 69.249 | 75.241 | -27.658 | 1.00 | 14.09 | heav |
| ATOM | 2546 | ND1 | HIS | 2053 | 68.305 | 76.056 | -29.393 | 1.00 | 14.09 | heav |
| ATOM | 2548 | CE1 | HIS | 2053 | 68.964 | 77.023 | -28.807 | 1.00 | 14.09 | heav |
| ATOM | 2549 | NE2 | HIS | 2053 | 69.526 | 76.523 | -27.758 | 1.00 | 14.09 | heav |

| ATOM | 2551 | C | HIS | 2053 | 65.817 | 73.967 | -28.010 | 1.00 | 2.00 | heav |
|------|------|------|------|------|--------|--------|---------|------|-------|------|
| ATOM | 2552 | O | HIS | 2053 | 64.804 | 73.892 | -28.676 | 1.00 | 14.09 | heav |
| ATOM | 2553 | N | TYR | 2054 | 65.899 | 74.973 | -27.140 | 1.00 | 20.02 | heav |
| ATOM | 2555 | CA | TYR | 2054 | 64.790 | 75.912 | -26.935 | 1.00 | 20.02 | heav |
| ATOM | 2556 | CB | TYR | 2054 | 65.124 | 76.834 | -25.747 | 1.00 | 22.34 | heav |
| ATOM | 2557 | CG | TYR | 2054 | 66.128 | 77.983 | -25.919 | 1.00 | 22.34 | heav |
| ATOM | 2558 | CD1 | TYR | 2054 | 65.777 | 79.235 | -26.407 | 1.00 | 22.34 | heav |
| ATOM | 2559 | CE1 | TYR | 2054 | 66.693 | 80.277 | -26.557 | 1.00 | 22.34 | heav |
| ATOM | 2560 | CD2 | TYR | 2054 | 67.434 | 77.769 | -25.564 | 1.00 | 22.34 | heav |
| ATOM | 2561 | CE2 | TYR | 2054 | 68.354 | 78.801 | -25.712 | 1.00 | 22.34 | heav |
| ATOM | 2562 | CZ | TYR | 2054 | 68.010 | 80.054 | -26.209 | 1.00 | 22.34 | heav |
| ATOM | 2563 | OH | TYR | 2054 | 69.010 | 80.989 | -26.453 | 1.00 | 22.34 | heav |
| ATOM | 2565 | C | TYR | 2054 | 64.452 | 76.777 | -28.162 | 1.00 | 20.02 | heav |
| ATOM | 2566 | O | TYR | 2054 | 63.465 | 77.472 | -28.235 | 1.00 | 22.34 | heav |
| ATOM | 2567 | N | SER | 2055 | 65.283 | 76.842 | -29.194 | 1.00 | 14.98 | heav |
| ATOM | 2569 | CA | SER | 2055 | 64.984 | 77.596 | -30.420 | 1.00 | 14.98 | heav |
| ATOM | 2570 | CB | SER | 2055 | 66.182 | 78.027 | -31.128 | 1.00 | 10.93 | heav |
| ATOM | 2571 | OG | SER | 2055 | 66.943 | 76.863 | -31.469 | 1.00 | 10.93 | heav |
| ATOM | 2573 | C | SER | 2055 | 64.245 | 76.766 | -31.462 | 1.00 | 14.98 | heav |
| ATOM | 2574 | O | SER | 2055 | 63.973 | 77.225 | -32.561 | 1.00 | 10.93 | heav |
| ATOM | 2575 | N | ALA | 2056 | 64.059 | 75.490 | -31.097 | 1.00 | 8.32 | heav |
| ATOM | 2577 | CA | ALA | 2056 | 63.395 | 74.437 | -31.828 | 1.00 | 8.32 | heav |
| ATOM | 2578 | CB | ALA | 2056 | 62.195 | 74.982 | -32.598 | 1.00 | 5.98 | heav |
| ATOM | 2579 | C | ALA | 2056 | 64.314 | 73.717 | -32.774 | 1.00 | 8.32 | heav |
| ATOM | 2580 | O | ALA | 2056 | 63.959 | 72.684 | -33.346 | 1.00 | 5.98 | heav |
| ATOM | 2581 | N | GLY | 2057 | 65.521 | 74.265 | -32.900 | 1.00 | 5.31 | heav. |
| ATOM | 2583 | CA | GLY | 2057 | 66.562 | 73.633 | -33.663 | 1.00 | 5.31 | heav |
| ATOM | 2584 | C | GLY | 2057 | 66.987 | 72.302 | -33.045 | 1.00 | 5.31 | heav |
| ATOM | 2585 | O | GLY | 2057 | 66.897 | 72.119 | -31.817 | 1.00 | 13.12 | heav |
| ATOM | 2586 | N | THR | 2058 | 67.534 | 71.372 | -33.831 | 1.00 | 10.32 | heav |
| ATOM | 2588 | CA | THR | 2058 | 67.863 | 70.077 | -33.243 | 1.00 | 10.32 | heav |
| ATOM | 2589 | CB | THR | 2058 | 66.838 | 68.974 | -33.655 | 1.00 | 16.44 | heav |
| ATOM | 2590 | OG1 | THR | 2058 | 67.003 | 68.904 | -35.062 | 1.00 | 16.44 | heav |
| ATOM | 2592 | CG2 | THR | 2058 | 65.386 | 69.198 | -33.276 | 1.00 | 16.44 | heav |
| ATOM | 2593 | C | THR | 2058 | 69.247 | 69.508 | -33.546 | 1.00 | 10.32 | heav |
| ATOM | 2594 | O | THR | 2058 | 70.065 | 70.082 | -34.296 | 1.00 | 16.44 | heav |
| ATOM | 2595 | N | ASN | 2059 | 69.566 | 68.412 | -32.837 | 1.00 | 17.46 | heav |
| ATOM | 2597 | CA | ASN | 2059 | 70.786 | 67.646 | -33.113 | 1.00 | 17.46 | heav |
| ATOM | 2598 | CB | ASN | 2059 | 72.038 | 68.265 | -32.433 | 1.00 | 26.43 | heav |
| ATOM | 2599 | CG | ASN | 2059 | 73.411 | 67.616 | -32.793 | 1.00 | 26.43 | heav |
| ATOM | 2600 | OD1 | ASN | 2059 | 73.781 | 66.566 | -32.275 | 1.00 | 26.43 | heav |
| ATOM | 2601 | ND2 | ASN | 2059 | 74.306 | 68.021 | -33.681 | 1.00 | 26.43 | heav |
| ATOM | 2604 | C | ASN | 2059 | 70.518 | 66.244 | -32.581 | 1.00 | 17.46 | heav |
| ATOM | 2605 | O | ASN | 2059 | 69.836 | 66.046 | -31.572 | 1.00 | 26.43 | heav |
| ATOM | 2606 | N | TYR | 2060 | 70.931 | 65.283 | -33.393 | 1.00 | 2.00 | heav |
| ATOM | 2608 | CA | TYR | 2060 | 70.631 | 63.900 | -33.120 | 1.00 | 2.00 | heav |
| ATOM | 2609 | CB | TYR | 2060 | 69.668 | 63.343 | -34.123 | 1.00 | 5.27 | heav |
| ATOM | 2610 | CG | TYR | 2060 | 68.368 | 64.097 | -34.395 | 1.00 | 5.27 | heav |
| ATOM | 2611 | CD1 | TYR | 2060 | 67.468 | 64.485 | -33.420 | 1.00 | 5.27 | heav |
| ATOM | 2612 | CE1 | TYR | 2060 | 66.239 | 65.049 | -33.760 | 1.00 | 5.27 | heav |
| ATOM | 2613 | CD2 | TYR | 2060 | 68.023 | 64.316 | -35.706 | 1.00 | 5.27 | heav |
| ATOM | 2614 | CE2 | TYR | 2060 | 66.796 | 64.888 | -36.036 | 1.00 | 5.27 | heav |
| ATOM | 2615 | CZ | TYR | 2060 | 65.897 | 65.241 | -35.063 | 1.00 | 5.27 | heav |
| ATOM | 2616 | OH | TYR | 2060 | 64.651 | 65.689 | -35.413 | 1.00 | 5.27 | heav |
| ATOM | 2618 | C | TYR | 2060 | 71.864 | 63.056 | -33.179 | 1.00 | 2.00 | heav |
| ATOM | 2619 | O | TYR | 2060 | 72.798 | 63.376 | -33.880 | 1.00 | 5.27 | heav |
| ATOM | 2620 | N | ASN | 2061 | 71.930 | 61.953 | -32.464 | 1.00 | 2.00 | heav |
| ATOM | 2622 | CA | ASN | 2061 | 73.092 | 61.081 | -32.443 | 1.00 | 2.00 | heav |
| ATOM | 2623 | CB | ASN | 2061 | 72.793 | 59.989 | -31.494 | 1.00 | 13.01 | heav |
| ATOM | 2624 | CG | ASN | 2061 | 73.905 | 59.024 | -31.351 | 1.00 | 13.01 | heav |
| ATOM | 2625 | OD1 | ASN | 2061 | 74.525 | 58.656 | -32.319 | 1.00 | 13.01 | heav |
| ATOM | 2626 | ND2 | ASN | 2061 | 74.273 | 58.431 | -30.251 | 1.00 | 13.01 | heav |
| ATOM | 2629 | C | ASN | 2061 | 73.291 | 60.571 | -33.847 | 1.00 | 2.00 | heav |
| ATOM | 2630 | O | ASN | 2061 | 72.352 | 60.031 | -34.443 | 1.00 | 13.01 | heav |
| ATOM | 2631 | N | PRO | 2062 | 74.481 | 60.640 | -34.440 | 1.00 | 19.15 | heav |
| ATOM | 2632 | CD | PRO | 2062 | 75.741 | 60.954 | -33.774 | 1.00 | 14.84 | heav |
| ATOM | 2633 | CA | PRO | 2062 | 74.737 | 60.263 | -35.842 | 1.00 | 19.15 | heav |

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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATOM | 2634 | CB | PRO | 2062 | 76.199 | 60.505 | -36.000 | 1.00 14.84 | heav |
| ATOM | 2635 | CG | PRO | 2062 | 76.525 | 61.521 | -34.941 | 1.00 14.84 | heav |
| ATOM | 2636 | C | PRO | 2062 | 74.339 | 58.855 | -36.251 | 1.00 19.15 | heav |
| ATOM | 2637 | O | PRO | 2062 | 74.085 | 58.583 | -37.405 | 1.00 14.84 | heav |
| ATOM | 2638 | N | SER | 2063 | 74.345 | 57.914 | -35.334 | 1.00 8.99 | heav |
| ATOM | 2640 | CA | SER | 2063 | 73.850 | 56.604 | -35.631 | 1.00 8.99 | heav |
| ATOM | 2641 | CB | SER | 2063 | 74.228 | 55.697 | -34.563 | 1.00 21.18 | heav |
| ATOM | 2642 | OG | SER | 2063 | 73.879 | 56.221 | -33.293 | 1.00 21.18 | heav |
| ATOM | 2644 | C | SER | 2063 | 72.328 | 56.639 | -35.766 | 1.00 8.99 | heav |
| ATOM | 2645 | O | SER | 2063 | 71.861 | 56.352 | -36.862 | 1.00 21.18 | heav |
| ATOM | 2646 | N | LEU | 2064 | 71.426 | 57.021 | -34.831 | 1.00 28.00 | heav |
| ATOM | 2648 | CA | LEU | 2064 | 69.969 | 57.103 | -35.059 | 1.00 28.00 | heav |
| ATOM | 2649 | CB | LEU | 2064 | 69.218 | 57.784 | -33.899 | 1.00 8.67 | heav |
| ATOM | 2650 | CG | LEU | 2064 | 69.130 | 57.013 | -32.605 | 1.00 8.67 | heav |
| ATOM | 2651 | CD1 | LEU | 2064 | 69.170 | 55.504 | -32.861 | 1.00 8.67 | heav |
| ATOM | 2652 | CD2 | LEU | 2064 | 70.335 | 57.297 | -31.781 | 1.00 8.67 | heav |
| ATOM | 2653 | C | LEU | 2064 | 69.713 | 57.890 | -36.328 | 1.00 28.00 | heav |
| ATOM | 2654 | O | LEU | 2064 | 68.775 | 57.640 | -37.077 | 1.00 8.67 | heav |
| ATOM | 2655 | N | LYS | 2065 | 70.657 | 58.781 | -36.616 | 1.00 14.92 | heav |
| ATOM | 2657 | CA | LYS | 2065 | 70.751 | 59.548 | -37.849 | 1.00 14.92 | heav |
| ATOM | 2658 | CB | LYS | 2065 | 71.451 | 58.714 | -38.986 | 1.00 39.45 | heav |
| ATOM | 2659 | CG | LYS | 2065 | 70.945 | 57.375 | -39.616 | 1.00 39.45 | heav |
| ATOM | 2660 | CD | LYS | 2065 | 71.513 | 57.290 | -41.057 | 1.00 39.45 | heav |
| ATOM | 2661 | CE | LYS | 2065 | 73.072 | 57.292 | -41.039 | 1.00 39.45 | heav |
| ATOM | 2662 | NZ | LYS | 2065 | 73.541 | 56.148 | -40.239 | 1.00 39.45 | heav |
| ATOM | 2666 | C | LYS | 2065 | 69.608 | 60.236 | -38.549 | 1.00 14.92 | heav. |
| ATOM | 2667 | O | LYS | 2065 | 69.465 | 61.439 | -38.403 | 1.00 39.45 | heav |
| ATOM | 2668 | N | SER | 2066 | 68.844 | 59.384 | -39.244 | 1.00 16.12 | heav |
| ATOM | 2670 | CA | SER | 2066 | 67.760 | 59.583 | -40.205 | 1.00 16.12 | heav |
| ATOM | 2671 | CB | SER | 2066 | 68.115 | 59.072 | -41.551 | 1.00 23.51 | heav |
| ATOM | 2672 | OG | SER | 2066 | 68.522 | 57.726 | -41.280 | 1.00 23.51 | heav |
| ATOM | 2674 | C | SER | 2066 | 66.512 | 58.783 | -39.821 | 1.00 16.12 | heav |
| ATOM | 2675 | O | SER | 2066 | 65.425 | 58.850 | -40.427 | 1.00 23.51 | heav |
| ATOM | 2676 | N | ARG | 2067 | 66.726 | 57.848 | -38.906 | 1.00 7.85 | heav |
| ATOM | 2678 | CA | ARG | 2067 | 65.623 | 57.204 | -38.277 | 1.00 7.85 | heav |
| ATOM | 2679 | CB | ARG | 2067 | 66.131 | 55.983 | -37.587 | 1.00 9.44 | heav |
| ATOM | 2680 | CG | ARG | 2067 | 66.810 | 54.826 | -38.362 | 1.00 9.44 | heav |
| ATOM | 2681 | CD | ARG | 2067 | 67.273 | 53.783 | -37.313 | 1.00 9.44 | heav |
| ATOM | 2682 | NE | ARG | 2067 | 66.119 | 53.305 | -36.573 | 1.00 9.44 | heav |
| ATOM | 2684 | CZ | ARG | 2067 | 66.158 | 52.690 | -35.425 | 1.00 9.44 | heav |
| ATOM | 2685 | NH1 | ARG | 2067 | 67.277 | 52.422 | -34.802 | 1.00 9.44 | heav |
| ATOM | 2688 | NH2 | ARG | 2067 | 65.001 | 52.359 | -34.955 | 1.00 9.44 | heav |
| ATOM | 2691 | C | ARG | 2067 | 64.974 | 58.147 | -37.269 | 1.00 7.85 | heav |
| ATOM | 2692 | O | ARG | 2067 | 63.771 | 58.106 | -37.133 | 1.00 9.44 | heav |
| ATOM | 2693 | N | ILE | 2068 | 65.669 | 59.044 | -36.579 | 1.00 8.56 | heav |
| ATOM | 2695 | CA | ILE | 2068 | 65.083 | 59.784 | -35.483 | 1.00 8.56 | heav |
| ATOM | 2696 | CB | ILE | 2068 | 66.091 | 59.851 | -34.337 | 1.00 12.91 | heav |
| ATOM | 2697 | CG2 | ILE | 2068 | 67.134 | 60.889 | -34.488 | 1.00 12.91 | heav |
| ATOM | 2698 | CG1 | ILE | 2068 | 65.279 | 60.147 | -33.110 | 1.00 12.91 | heav |
| ATOM | 2699 | CD1 | ILE | 2068 | 66.044 | 60.575 | -31.880 | 1.00 12.91 | heav |
| ATOM | 2700 | C | ILE | 2068 | 64.520 | 61.153 | -35.704 | 1.00 8.56 | heav |
| ATOM | 2701 | O | ILE | 2068 | 64.987 | 61.853 | -36.562 | 1.00 12.91 | heav |
| ATOM | 2702 | N | SER | 2069 | 63.511 | 61.625 | -34.992 | 1.00 6.11 | heav |
| ATOM | 2704 | CA | SER | 2069 | 62.947 | 62.941 | -35.183 | 1.00 6.11 | heav |
| ATOM | 2705 | CB | SER | 2069 | 61.811 | 62.871 | -36.164 | 1.00 10.85 | heav |
| ATOM | 2706 | OG | SER | 2069 | 60.977 | 64.011 | -36.354 | 1.00 10.85 | heav |
| ATOM | 2708 | C | SER | 2069 | 62.429 | 63.374 | -33.855 | 1.00 6.11 | heav |
| ATOM | 2709 | O | SER | 2069 | 61.709 | 62.588 | -33.266 | 1.00 10.85 | heav |
| ATOM | 2710 | N | ILE | 2070 | 62.808 | 64.523 | -33.299 | 1.00 7.51 | heav |
| ATOM | 2712 | CA | ILE | 2070 | 62.262 | 65.038 | -32.042 | 1.00 7.51 | heav |
| ATOM | 2713 | CB | ILE | 2070 | 63.404 | 65.328 | -31.086 | 1.00 9.07 | heav |
| ATOM | 2714 | CG2 | ILE | 2070 | 62.872 | 65.792 | -29.760 | 1.00 9.07 | heav |
| ATOM | 2715 | CG1 | ILE | 2070 | 64.170 | 64.056 | -30.830 | 1.00 9.07 | heav |
| ATOM | 2716 | CD1 | ILE | 2070 | 65.320 | 64.230 | -29.894 | 1.00 9.07 | heav |
| ATOM | 2717 | C | ILE | 2070 | 61.422 | 66.292 | -32.313 | 1.00 7.51 | heav |
| ATOM | 2718 | O | ILE | 2070 | 61.765 | 67.139 | -33.098 | 1.00 9.07 | heav |
| ATOM | 2719 | N | THR | 2071 | 60.251 | 66.472 | -31.737 | 1.00 12.67 | heav |

| ATOM | 2721 | CA | THR | 2071 | 59.292 | 67.512 | -32.096 | 1.00 | 12.67 | heav |
|------|------|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 2722 | CB | THR | 2071 | 58.323 | 66.816 | -33.079 | 1.00 | 10.81 | heav |
| ATOM | 2723 | OG1 | THR | 2071 | 58.818 | 67.390 | -34.255 | 1.00 | 10.81 | heav |
| ATOM | 2725 | CG2 | THR | 2071 | 56.815 | 66.985 | -33.007 | 1.00 | 10.81 | heav |
| ATOM | 2726 | C | THR | 2071 | 58.655 | 68.064 | -30.854 | 1.00 | 12.67 | heav |
| ATOM | 2727 | O | THR | 2071 | 58.688 | 67.432 | -29.823 | 1.00 | 10.81 | heav |
| ATOM | 2728 | N | ARG | 2072 | 58.020 | 69.205 | -30.865 | 1.00 | 8.11 | heav |
| ATOM | 2730 | CA | ARG | 2072 | 57.629 | 69.842 | -29.627 | 1.00 | 8.11 | heav |
| ATOM | 2731 | CB | ARG | 2072 | 58.507 | 71.056 | -29.524 | 1.00 | 18.35 | heav |
| ATOM | 2732 | CG | ARG | 2072 | 59.223 | 71.631 | -28.285 | 1.00 | 18.35 | heav |
| ATOM | 2733 | CD | ARG | 2072 | 60.019 | 72.835 | -28.874 | 1.00 | 18.35 | heav |
| ATOM | 2734 | NE | ARG | 2072 | 60.516 | 73.938 | -28.038 | 1.00 | 18.35 | heav |
| ATOM | 2736 | CZ | ARG | 2072 | 60.364 | 75.226 | -28.463 | 1.00 | 18.35 | heav |
| ATOM | 2737 | NH1 | ARG | 2072 | 59.776 | 75.559 | -29.620 | 1.00 | 18.35 | heav |
| ATOM | 2740 | NH2 | ARG | 2072 | 60.777 | 76.247 | -27.726 | 1.00 | 18.35 | heav |
| ATOM | 2743 | C | ARG | 2072 | 56.161 | 70.211 | -29.668 | 1.00 | 8.11 | heav |
| ATOM | 2744 | O | ARG | 2072 | 55.508 | 70.164 | -30.706 | 1.00 | 18.35 | heav |
| ATOM | 2745 | N | ASP | 2073 | 55.533 | 70.525 | -28.566 | 1.00 | 10.74 | heav |
| ATOM | 2747 | CA | ASP | 2073 | 54.246 | 71.166 | -28.640 | 1.00 | 10.74 | heav |
| ATOM | 2748 | CB | ASP | 2073 | 53.096 | 70.200 | -28.619 | 1.00 | 16.95 | heav |
| ATOM | 2749 | CG | ASP | 2073 | 51.752 | 70.885 | -28.846 | 1.00 | 16.95 | heav |
| ATOM | 2750 | OD1 | ASP | 2073 | 51.643 | 72.103 | -28.997 | 1.00 | 16.95 | heav |
| ATOM | 2751 | OD2 | ASP | 2073 | 50.766 | 70.176 | -28.891 | 1.00 | 16.95 | heav |
| ATOM | 2752 | C | ASP | 2073 | 54.199 | 72.003 | -27.393 | 1.00 | 10.74 | heav |
| ATOM | 2753 | O | ASP | 2073 | 53.984 | 71.538 | -26.273 | 1.00 | 16.95 | heav |
| ATOM | 2754 | N | THR | 2074 | 54.458 | 73.270 | -27.647 | 1.00 | 15.98 | heav |
| ATOM | 2756 | CA | THR | 2074 | 54.483 | 74.327 | -26.646 | 1.00 | 15.98 | heav |
| ATOM | 2757 | CB | THR | 2074 | 54.876 | 75.614 | -27.401 | 1.00 | 17.00 | heav |
| ATOM | 2758 | OG1 | THR | 2074 | 56.223 | 75.338 | -27.719 | 1.00 | 17.00 | heav |
| ATOM | 2760 | CG2 | THR | 2074 | 54.768 | 76.951 | -26.662 | 1.00 | 17.00 | heav |
| ATOM | 2761 | C | THR | 2074 | 53.179 | 74.490 | -25.869 | 1.00 | 15.98 | heav |
| ATOM | 2762 | O | THR | 2074 | 53.104 | 74.471 | -24.648 | 1.00 | 17.00 | heav |
| ATOM | 2763 | N | SER | 2075 | 52.102 | 74.498 | -26.648 | 1.00 | 13.29 | heav |
| ATOM | 2765 | CA | SER | 2075 | 50.734 | 74.694 | -26.156 | 1.00 | 13.29 | heav |
| ATOM | 2766 | CB | SER | 2075 | 49.733 | 74.558 | -27.266 | 1.00 | 14.67 | heav |
| ATOM | 2767 | OG | SER | 2075 | 49.826 | 73.194 | -27.682 | 1.00 | 14.67 | heav |
| ATOM | 2769 | C | SER | 2075 | 50.271 | 73.748 | -25.081 | 1.00 | 13.29 | heav |
| ATOM | 2770 | O | SER | 2075 | 49.510 | 74.121 | -24.218 | 1.00 | 14.67 | heav |
| ATOM | 2771 | N | LYS | 2076 | 50.614 | 72.487 | -25.297 | 1.00 | 2.00 | heav |
| ATOM | 2773 | CA | LYS | 2076 | 50.381 | 71.416 | -24.370 | 1.00 | 2.00 | heav |
| ATOM | 2774 | CB | LYS | 2076 | 49.899 | 70.213 | -25.112 | 1.00 | 32.09 | heav |
| ATOM | 2775 | CG | LYS | 2076 | 48.499 | 70.340 | -25.628 | 1.00 | 32.09 | heav |
| ATOM | 2776 | CD | LYS | 2076 | 47.916 | 68.952 | -25.793 | 1.00 | 32.09 | heav |
| ATOM | 2777 | CE | LYS | 2076 | 48.589 | 68.430 | -27.043 | 1.00 | 32.09 | heav |
| ATOM | 2778 | NZ | LYS | 2076 | 48.305 | 67.011 | -27.287 | 1.00 | 32.09 | heav |
| ATOM | 2782 | C | LYS | 2076 | 51.619 | 71.014 | -23.580 | 1.00 | 2.00 | heav |
| ATOM | 2783 | O | LYS | 2076 | 51.536 | 70.096 | -22.771 | 1.00 | 32.09 | heav |
| ATOM | 2784 | N | ASN | 2077 | 52.817 | 71.576 | -23.796 | 1.00 | 11.27 | heav |
| ATOM | 2786 | CA | ASN | 2077 | 54.023 | 71.308 | -22.979 | 1.00 | 11.27 | heav |
| ATOM | 2787 | CB | ASN | 2077 | 53.785 | 71.651 | -21.527 | 1.00 | 21.53 | heav |
| ATOM | 2788 | CG | ASN | 2077 | 54.866 | 72.587 | -21.067 | 1.00 | 21.53 | heav |
| ATOM | 2789 | OD1 | ASN | 2077 | 55.259 | 73.570 | -21.739 | 1.00 | 21.53 | heav |
| ATOM | 2790 | ND2 | ASN | 2077 | 55.392 | 72.225 | -19.896 | 1.00 | 21.53 | heav |
| ATOM | 2793 | C | ASN | 2077 | 54.636 | 69.921 | -22.964 | 1.00 | 11.27 | heav |
| ATOM | 2794 | O | ASN | 2077 | 55.054 | 69.321 | -21.955 | 1.00 | 21.53 | heav |
| ATOM | 2795 | N | GLN | 2078 | 54.697 | 69.429 | -24.180 | 1.00 | 6.61 | heav |
| ATOM | 2797 | CA | GLN | 2078 | 55.349 | 68.178 | -24.326 | 1.00 | 6.61 | heav |
| ATOM | 2798 | CB | GLN | 2078 | 54.322 | 67.090 | -24.327 | 1.00 | 8.48 | heav |
| ATOM | 2799 | CG | GLN | 2078 | 53.174 | 67.241 | -25.215 | 1.00 | 8.48 | heav |
| ATOM | 2800 | CD | GLN | 2078 | 52.048 | 66.302 | -24.844 | 1.00 | 8.48 | heav |
| ATOM | 2801 | OE1 | GLN | 2078 | 51.940 | 65.677 | -23.811 | 1.00 | 8.48 | heav |
| ATOM | 2802 | NE2 | GLN | 2078 | 51.085 | 66.024 | -25.668 | 1.00 | 8.48 | heav |
| ATOM | 2805 | C | GLN | 2078 | 56.191 | 68.139 | -25.565 | 1.00 | 6.61 | heav |
| ATOM | 2806 | O | GLN | 2078 | 55.901 | 68.884 | -26.488 | 1.00 | 8.48 | heav |
| ATOM | 2807 | N | PHE | 2079 | 57.320 | 67.436 | -25.550 | 1.00 | 5.10 | heav |
| ATOM | 2809 | CA | PHE | 2079 | 58.032 | 67.179 | -26.756 | 1.00 | 5.10 | heav |
| ATOM | 2810 | CB | PHE | 2079 | 59.421 | 67.750 | -26.624 | 1.00 | 2.00 | heav |

| ATOM | 2811 | CG  | PHE | 2079 | 60.361 | 67.086 | -25.693 | 1.00 | 2.00  | heav |
|------|------|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 2812 | CD1 | PHE | 2079 | 61.345 | 66.321 | -26.222 | 1.00 | 2.00  | heav |
| ATOM | 2813 | CD2 | PHE | 2079 | 60.238 | 67.264 | -24.345 | 1.00 | 2.00  | heav |
| ATOM | 2814 | CE1 | PHE | 2079 | 62.226 | 65.726 | -25.372 | 1.00 | 2.00  | heav |
| ATOM | 2815 | CE2 | PHE | 2079 | 61.110 | 66.677 | -23.493 | 1.00 | 2.00  | heav |
| ATOM | 2816 | CZ  | PHE | 2079 | 62.102 | 65.904 | -24.012 | 1.00 | 2.00  | heav |
| ATOM | 2817 | C   | PHE | 2079 | 57.997 | 65.659 | -27.067 | 1.00 | 5.10  | heav |
| ATOM | 2818 | O   | PHE | 2079 | 57.710 | 64.776 | -26.253 | 1.00 | 2.00  | heav |
| ATOM | 2819 | N   | PHE | 2080 | 58.279 | 65.293 | -28.303 | 1.00 | 2.00  | heav |
| ATOM | 2821 | CA  | PHE | 2080 | 58.011 | 63.985 | -28.836 | 1.00 | 2.00  | heav |
| ATOM | 2822 | CB  | PHE | 2080 | 56.934 | 64.142 | -29.912 | 1.00 | 10.12 | heav |
| ATOM | 2823 | CG  | PHE | 2080 | 55.619 | 64.870 | -29.484 | 1.00 | 10.12 | heav |
| ATOM | 2824 | CD1 | PHE | 2080 | 55.428 | 66.223 | -29.730 | 1.00 | 10.12 | heav |
| ATOM | 2825 | CD2 | PHE | 2080 | 54.659 | 64.200 | -28.754 | 1.00 | 10.12 | heav |
| ATOM | 2826 | CE1 | PHE | 2080 | 54.332 | 66.875 | -29.242 | 1.00 | 10.12 | heav |
| ATOM | 2827 | CE2 | PHE | 2080 | 53.574 | 64.862 | -28.271 | 1.00 | 10.12 | heav |
| ATOM | 2828 | CZ  | PHE | 2080 | 53.414 | 66.192 | -28.509 | 1.00 | 10.12 | heav |
| ATOM | 2829 | C   | PHE | 2080 | 59.227 | 63.327 | -29.420 | 1.00 | 2.00  | heav |
| ATOM | 2830 | O   | PHE | 2080 | 60.029 | 64.045 | -29.994 | 1.00 | 10.12 | heav |
| ATOM | 2831 | N   | LEU | 2081 | 59.414 | 62.009 | -29.253 | 1.00 | 15.18 | heav |
| ATOM | 2833 | CA  | LEU | 2081 | 60.430 | 61.222 | -29.972 | 1.00 | 15.18 | heav |
| ATOM | 2834 | CB  | LEU | 2081 | 61.274 | 60.312 | -29.119 | 1.00 | 3.16  | heav |
| ATOM | 2835 | CG  | LEU | 2081 | 62.237 | 59.414 | -29.864 | 1.00 | 3.16  | heav |
| ATOM | 2836 | CD1 | LEU | 2081 | 63.630 | 59.785 | -29.538 | 1.00 | 3.16  | heav |
| ATOM | 2837 | CD2 | LEU | 2081 | 61.976 | 58.002 | -29.508 | 1.00 | 3.16  | heav |
| ATOM | 2838 | C   | LEU | 2081 | 59.866 | 60.249 | -30.998 | 1.00 | 15.18 | heav |
| ATOM | 2839 | O   | LEU | 2081 | 59.061 | 59.384 | -30.671 | 1.00 | 3.16  | heav |
| ATOM | 2840 | N   | GLN | 2082 | 60.361 | 60.284 | -32.206 | 1.00 | 9.16  | heav |
| ATOM | 2842 | CA  | GLN | 2082 | 59.920 | 59.264 | -33.106 | 1.00 | 9.16  | heav |
| ATOM | 2843 | CB  | GLN | 2082 | 59.049 | 59.848 | -34.176 | 1.00 | 28.25 | heav |
| ATOM | 2844 | CG  | GLN | 2082 | 58.819 | 58.911 | -35.373 | 1.00 | 28.25 | heav |
| ATOM | 2845 | CD  | GLN | 2082 | 57.898 | 59.494 | -36.430 | 1.00 | 28.25 | heav |
| ATOM | 2846 | OE1 | GLN | 2082 | 56.724 | 59.695 | -36.162 | 1.00 | 28.25 | heav |
| ATOM | 2847 | NE2 | GLN | 2082 | 58.271 | 59.856 | -37.650 | 1.00 | 28.25 | heav |
| ATOM | 2850 | C   | GLN | 2082 | 61.080 | 58.577 | -33.738 | 1.00 | 9.16  | heav |
| ATOM | 2851 | O   | GLN | 2082 | 61.972 | 59.252 | -34.196 | 1.00 | 28.25 | heav |
| ATOM | 2852 | N   | LEU | 2083 | 61.060 | 57.263 | -33.705 | 1.00 | 4.61  | heav |
| ATOM | 2854 | CA  | LEU | 2083 | 62.054 | 56.414 | -34.331 | 1.00 | 4.61  | heav |
| ATOM | 2855 | CB  | LEU | 2083 | 62.653 | 55.287 | -33.449 | 1.00 | 11.62 | heav |
| ATOM | 2856 | CG  | LEU | 2083 | 63.933 | 55.374 | -32.650 | 1.00 | 11.62 | heav |
| ATOM | 2857 | CD1 | LEU | 2083 | 64.218 | 54.003 | -32.145 | 1.00 | 11.62 | heav |
| ATOM | 2858 | CD2 | LEU | 2083 | 65.102 | 55.870 | -33.487 | 1.00 | 11.62 | heav |
| ATOM | 2859 | C   | LEU | 2083 | 61.357 | 55.654 | -35.426 | 1.00 | 4.61  | heav |
| ATOM | 2860 | O   | LEU | 2083 | 60.404 | 54.971 | -35.073 | 1.00 | 11.62 | heav |
| ATOM | 2861 | N   | ASN | 2084 | 61.761 | 55.725 | -36.701 | 1.00 | 6.91  | heav |
| ATOM | 2863 | CA  | ASN | 2084 | 61.212 | 54.889 | -37.783 | 1.00 | 6.91  | heav |
| ATOM | 2864 | CB  | ASN | 2084 | 61.292 | 55.648 | -39.089 | 1.00 | 15.54 | heav |
| ATOM | 2865 | CG  | ASN | 2084 | 60.526 | 56.940 | -39.060 | 1.00 | 15.54 | heav |
| ATOM | 2866 | OD1 | ASN | 2084 | 59.358 | 57.060 | -38.674 | 1.00 | 15.54 | heav |
| ATOM | 2867 | ND2 | ASN | 2084 | 61.248 | 57.982 | -39.407 | 1.00 | 15.54 | heav |
| ATOM | 2870 | C   | ASN | 2084 | 61.862 | 53.518 | -38.020 | 1.00 | 6.91  | heav |
| ATOM | 2871 | O   | ASN | 2084 | 62.975 | 53.336 | -37.549 | 1.00 | 15.54 | heav |
| ATOM | 2872 | N   | SER | 2085 | 61.292 | 52.521 | -38.695 | 1.00 | 2.00  | heav |
| ATOM | 2874 | CA  | SER | 2085 | 61.987 | 51.260 | -38.994 | 1.00 | 2.00  | heav |
| ATOM | 2875 | CB  | SER | 2085 | 63.139 | 51.442 | -39.969 | 1.00 | 12.98 | heav |
| ATOM | 2876 | OG  | SER | 2085 | 62.648 | 52.057 | -41.150 | 1.00 | 12.98 | heav |
| ATOM | 2878 | C   | SER | 2085 | 62.594 | 50.500 | -37.826 | 1.00 | 2.00  | heav |
| ATOM | 2879 | O   | SER | 2085 | 63.665 | 49.906 | -37.893 | 1.00 | 12.98 | heav |
| ATOM | 2880 | N   | VAL | 2086 | 61.884 | 50.470 | -36.718 | 1.00 | 13.88 | heav |
| ATOM | 2882 | CA  | VAL | 2086 | 62.351 | 49.888 | -35.475 | 1.00 | 13.88 | heav |
| ATOM | 2883 | CB  | VAL | 2086 | 61.245 | 50.458 | -34.523 | 1.00 | 11.07 | heav |
| ATOM | 2884 | CG1 | VAL | 2086 | 60.268 | 49.388 | -34.162 | 1.00 | 11.07 | heav |
| ATOM | 2885 | CG2 | VAL | 2086 | 61.873 | 51.128 | -33.305 | 1.00 | 11.07 | heav |
| ATOM | 2886 | C   | VAL | 2086 | 62.639 | 48.367 | -35.483 | 1.00 | 13.88 | heav |
| ATOM | 2887 | O   | VAL | 2086 | 61.809 | 47.473 | -35.733 | 1.00 | 11.07 | heav |
| ATOM | 2888 | N   | THR | 2087 | 63.894 | 47.954 | -35.385 | 1.00 | 2.00  | heav |
| ATOM | 2890 | CA  | THR | 2087 | 64.156 | 46.520 | -35.356 | 1.00 | 2.00  | heav |

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| ATOM | 2891 | CB  | THR | 2087 | 65.564 | 46.074 | −35.848 | 1.00 | 24.84 | heav |
|------|------|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 2892 | OG1 | THR | 2087 | 66.497 | 46.659 | −34.940 | 1.00 | 24.84 | heav |
| ATOM | 2894 | CG2 | THR | 2087 | 65.926 | 46.508 | −37.250 | 1.00 | 24.84 | heav |
| ATOM | 2895 | C   | THR | 2087 | 64.111 | 46.099 | −33.928 | 1.00 | 2.00  | heav |
| ATOM | 2896 | O   | THR | 2087 | 64.151 | 46.896 | −33.005 | 1.00 | 24.84 | heav |
| ATOM | 2897 | N   | THR | 2088 | 64.252 | 44.809 | −33.794 | 1.00 | 15.71 | heav |
| ATOM | 2899 | CA  | THR | 2088 | 64.479 | 44.133 | −32.534 | 1.00 | 15.71 | heav |
| ATOM | 2900 | CB  | THR | 2088 | 64.734 | 42.690 | −32.894 | 1.00 | 14.77 | heav |
| ATOM | 2901 | OG1 | THR | 2088 | 63.872 | 42.096 | −31.985 | 1.00 | 14.77 | heav |
| ATOM | 2903 | CG2 | THR | 2088 | 66.162 | 42.138 | −32.832 | 1.00 | 14.77 | heav |
| ATOM | 2904 | C   | THR | 2088 | 65.626 | 44.712 | −31.699 | 1.00 | 15.71 | heav |
| ATOM | 2905 | O   | THR | 2088 | 65.720 | 44.524 | −30.502 | 1.00 | 14.77 | heav |
| ATOM | 2906 | N   | GLU | 2089 | 66.628 | 45.396 | −32.253 | 1.00 | 21.89 | heav |
| ATOM | 2908 | CA  | GLU | 2089 | 67.721 | 46.003 | −31.470 | 1.00 | 21.89 | heav |
| ATOM | 2909 | CB  | GLU | 2089 | 68.917 | 46.153 | −32.461 | 1.00 | 36.48 | heav |
| ATOM | 2910 | CG  | GLU | 2089 | 69.969 | 47.339 | −32.436 | 1.00 | 36.48 | heav |
| ATOM | 2911 | CD  | GLU | 2089 | 69.770 | 48.834 | −32.922 | 1.00 | 36.48 | heav |
| ATOM | 2912 | OE1 | GLU | 2089 | 68.909 | 49.125 | −33.794 | 1.00 | 36.48 | heav |
| ATOM | 2913 | OE2 | GLU | 2089 | 70.537 | 49.699 | −32.427 | 1.00 | 36.48 | heav |
| ATOM | 2914 | C   | GLU | 2089 | 67.215 | 47.340 | −30.873 | 1.00 | 21.89 | heav |
| ATOM | 2915 | O   | GLU | 2089 | 67.957 | 47.964 | −30.124 | 1.00 | 36.48 | heav |
| ATOM | 2916 | N   | ASP | 2090 | 65.999 | 47.890 | −31.131 | 1.00 | 15.85 | heav |
| ATOM | 2918 | CA  | ASP | 2090 | 65.605 | 49.166 | −30.560 | 1.00 | 15.85 | heav |
| ATOM | 2919 | CB  | ASP | 2090 | 64.805 | 49.887 | −31.605 | 1.00 | 15.59 | heav |
| ATOM | 2920 | CG  | ASP | 2090 | 65.719 | 50.292 | −32.771 | 1.00 | 15.59 | heav |
| ATOM | 2921 | OD1 | ASP | 2090 | 65.520 | 49.923 | −33.921 | 1.00 | 15.59 | heav |
| ATOM | 2922 | OD2 | ASP | 2090 | 66.696 | 50.977 | −32.543 | 1.00 | 15.59 | heav |
| ATOM | 2923 | C   | ASP | 2090 | 64.844 | 48.989 | −29.267 | 1.00 | 15.85 | heav |
| ATOM | 2924 | O   | ASP | 2090 | 64.268 | 49.929 | −28.755 | 1.00 | 15.59 | heav |
| ATOM | 2925 | N   | THR | 2091 | 64.831 | 47.796 | −28.683 | 1.00 | 12.69 | heav |
| ATOM | 2927 | CA  | THR | 2091 | 64.126 | 47.654 | −27.427 | 1.00 | 12.69 | heav |
| ATOM | 2928 | CB  | THR | 2091 | 63.480 | 46.182 | −27.138 | 1.00 | 15.26 | heav |
| ATOM | 2929 | OG1 | THR | 2091 | 64.125 | 45.572 | −26.028 | 1.00 | 15.26 | heav |
| ATOM | 2931 | CG2 | THR | 2091 | 63.519 | 45.253 | −28.361 | 1.00 | 15.26 | heav |
| ATOM | 2932 | C   | THR | 2091 | 65.128 | 47.990 | −26.345 | 1.00 | 12.69 | heav |
| ATOM | 2933 | O   | THR | 2091 | 66.234 | 47.476 | −26.243 | 1.00 | 15.26 | heav |
| ATOM | 2934 | N   | ALA | 2092 | 64.662 | 48.894 | −25.522 | 1.00 | 2.00  | heav |
| ATOM | 2936 | CA  | ALA | 2092 | 65.416 | 49.497 | −24.492 | 1.00 | 2.00  | heav |
| ATOM | 2937 | CB  | ALA | 2092 | 66.412 | 50.357 | −25.153 | 1.00 | 2.00  | heav |
| ATOM | 2938 | C   | ALA | 2092 | 64.446 | 50.315 | −23.661 | 1.00 | 2.00  | heav |
| ATOM | 2939 | O   | ALA | 2092 | 63.278 | 50.441 | −23.970 | 1.00 | 2.00  | heav |
| ATOM | 2940 | N   | THR | 2093 | 64.839 | 50.850 | −22.542 | 1.00 | 2.00  | heav |
| ATOM | 2942 | CA  | THR | 2093 | 63.996 | 51.740 | −21.779 | 1.00 | 2.00  | heav |
| ATOM | 2943 | CB  | THR | 2093 | 64.254 | 51.638 | −20.285 | 1.00 | 12.24 | heav |
| ATOM | 2944 | OG1 | THR | 2093 | 64.076 | 50.285 | −19.912 | 1.00 | 12.24 | heav |
| ATOM | 2946 | CG2 | THR | 2093 | 63.237 | 52.386 | −19.473 | 1.00 | 12.24 | heav |
| ATOM | 2947 | C   | THR | 2093 | 64.317 | 53.151 | −22.213 | 1.00 | 2.00  | heav |
| ATOM | 2948 | O   | THR | 2093 | 65.472 | 53.492 | −22.377 | 1.00 | 12.24 | heav |
| ATOM | 2949 | N   | TYR | 2094 | 63.339 | 54.010 | −22.420 | 1.00 | 8.16  | heav |
| ATOM | 2951 | CA  | TYR | 2094 | 63.536 | 55.367 | −22.911 | 1.00 | 8.16  | heav |
| ATOM | 2952 | CB  | TYR | 2094 | 62.661 | 55.643 | −24.113 | 1.00 | 2.00  | heav |
| ATOM | 2953 | CG  | TYR | 2094 | 63.037 | 54.817 | −25.328 | 1.00 | 2.00  | heav |
| ATOM | 2954 | CD1 | TYR | 2094 | 62.730 | 53.458 | −25.398 | 1.00 | 2.00  | heav |
| ATOM | 2955 | CE1 | TYR | 2094 | 63.084 | 52.660 | −26.468 | 1.00 | 2.00  | heav |
| ATOM | 2956 | CD2 | TYR | 2094 | 63.711 | 55.393 | −26.362 | 1.00 | 2.00  | heav |
| ATOM | 2957 | CE2 | TYR | 2094 | 64.062 | 54.594 | −27.431 | 1.00 | 2.00  | heav |
| ATOM | 2958 | CZ  | TYR | 2094 | 63.756 | 53.251 | −27.481 | 1.00 | 2.00  | heav |
| ATOM | 2959 | OH  | TYR | 2094 | 64.155 | 52.498 | −28.545 | 1.00 | 2.00  | heav |
| ATOM | 2961 | C   | TYR | 2094 | 63.250 | 56.443 | −21.896 | 1.00 | 8.16  | heav |
| ATOM | 2962 | O   | TYR | 2094 | 62.244 | 56.457 | −21.211 | 1.00 | 2.00  | heav |
| ATOM | 2963 | N   | TYR | 2095 | 64.168 | 57.364 | −21.765 | 1.00 | 5.94  | heav |
| ATOM | 2965 | CA  | TYR | 2095 | 64.021 | 58.495 | −20.894 | 1.00 | 5.94  | heav |
| ATOM | 2966 | CB  | TYR | 2095 | 65.118 | 58.596 | −19.866 | 1.00 | 6.13  | heav |
| ATOM | 2967 | CG  | TYR | 2095 | 65.446 | 57.375 | −19.025 | 1.00 | 6.13  | heav |
| ATOM | 2968 | CD1 | TYR | 2095 | 64.812 | 57.140 | −17.841 | 1.00 | 6.13  | heav |
| ATOM | 2969 | CE1 | TYR | 2095 | 65.178 | 56.043 | −17.079 | 1.00 | 6.13  | heav |
| ATOM | 2970 | CD2 | TYR | 2095 | 66.436 | 56.526 | −19.443 | 1.00 | 6.13  | heav |

| ATOM | 2971 | CE2 | TYR | 2095 | 66.809 | 55.435 | -18.692 | 1.00 | 6.13 | heav |
|------|------|-----|-----|------|--------|--------|---------|------|------|------|
| ATOM | 2972 | CZ | TYR | 2095 | 66.168 | 55.200 | -17.511 | 1.00 | 6.13 | heav |
| ATOM | 2973 | OH | TYR | 2095 | 66.514 | 54.109 | -16.769 | 1.00 | 6.13 | heav |
| ATOM | 2975 | C | TYR | 2095 | 64.117 | 59.771 | -21.699 | 1.00 | 5.94 | heav |
| ATOM | 2976 | O | TYP | 2095 | 64.713 | 59.852 | -22.766 | 1.00 | 6.13 | heav |
| ATOM | 2977 | N | CYS | 2096 | 63.503 | 60.793 | -21.143 | 1.00 | 9.21 | heav |
| ATOM | 2979 | CA | CYS | 2096 | 63.542 | 62.172 | -21.605 | 1.00 | 9.21 | heav |
| ATOM | 2980 | C | CYS | 2096 | 64.170 | 62.950 | -20.484 | 1.00 | 9.21 | heav |
| ATOM | 2981 | O | CYS | 2096 | 64.163 | 62.462 | -19.375 | 1.00 | 2.00 | heav |
| ATOM | 2982 | CB | CYS | 2096 | 62.165 | 62.770 | -21.881 | 1.00 | 2.00 | heav |
| ATOM | 2983 | SG | CYS | 2096 | 60.802 | 62.597 | -20.705 | 1.00 | 2.00 | heav |
| ATOM | 2984 | N | ALA | 2097 | 64.761 | 64.107 | -20.664 | 1.00 | 2.00 | heav |
| ATOM | 2986 | CA | ALA | 2097 | 65.430 | 64.837 | -19.590 | 1.00 | 2.00 | heav |
| ATOM | 2987 | CB | ALA | 2097 | 66.798 | 64.251 | -19.248 | 1.00 | 2.00 | heav |
| ATOM | 2988 | C | ALA | 2097 | 65.683 | 66.303 | -19.881 | 1.00 | 2.00 | heav |
| ATOM | 2989 | O | ALA | 2097 | 66.121 | 66.726 | -20.940 | 1.00 | 2.00 | heav |
| ATOM | 2990 | N | ARG | 2098 | 65.356 | 67.159 | -18.970 | 1.00 | 2.00 | heav |
| ATOM | 2992 | CA | ARG | 2098 | 65.712 | 68.514 | -19.137 | 1.00 | 2.00 | heav |
| ATOM | 2993 | CB | ARG | 2098 | 64.992 | 69.269 | -18.070 | 1.00 | 16.10 | heav |
| ATOM | 2994 | CG | ARG | 2098 | 65.301 | 70.695 | -18.324 | 1.00 | 16.10 | heav |
| ATOM | 2995 | CD | ARG | 2098 | 64.558 | 71.796 | -17.626 | 1.00 | 16.10 | heav |
| ATOM | 2996 | NE | ARG | 2098 | 64.275 | 71.809 | -16.194 | 1.00 | 16.10 | heav |
| ATOM | 2998 | CZ | ARG | 2098 | 65.077 | 71.447 | -15.206 | 1.00 | 16.10 | heav |
| ATOM | 2999 | NH1 | ARG | 2098 | 66.282 | 70.981 | -15.440 | 1.00 | 16.10 | heav |
| ATOM | 3002 | NH2 | ARG | 2098 | 64.691 | 71.681 | -13.962 | 1.00 | 16.10 | heav |
| ATOM | 3005 | C | ARG | 2098 | 67.240 | 68.636 | -19.003 | 1.00 | 2.00 | heav. |
| ATOM | 3006 | O | ARG | 2098 | 67.879 | 68.043 | -18.129 | 1.00 | 16.10 | heav |
| ATOM | 3007 | N | GLU | 2099 | 67.861 | 69.310 | -19.960 | 1.00 | 2.00 | heav |
| ATOM | 3009 | CA | GLU | 2099 | 69.216 | 69.830 | -19.808 | 1.00 | 2.00 | heav |
| ATOM | 3010 | CB | GLU | 2099 | 70.066 | 69.870 | -21.089 | 1.00 | 13.26 | heav |
| ATOM | 3011 | CG | GLU | 2099 | 71.479 | 70.209 | -20.684 | 1.00 | 13.26 | heav |
| ATOM | 3012 | CD | GLU | 2099 | 72.580 | 70.276 | -21.712 | 1.00 | 13.26 | heav |
| ATOM | 3013 | OE1 | GLU | 2099 | 72.329 | 70.475 | -22.888 | 1.00 | 13.26 | heav |
| ATOM | 3014 | OE2 | GLU | 2099 | 73.744 | 70.139 | -21.341 | 1.00 | 13.26 | heav |
| ATOM | 3015 | C | GLU | 2099 | 69.019 | 71.277 | -19.395 | 1.00 | 2.00 | heav |
| ATOM | 3016 | O | GLU | 2099 | 68.149 | 72.014 | -19.840 | 1.00 | 13.26 | heav |
| ATOM | 3017 | N | GLU | 2100 | 69.856 | 71.748 | -18.519 | 1.00 | 6.91 | heav |
| ATOM | 3019 | CA | GLU | 2100 | 69.673 | 73.054 | -17.952 | 1.00 | 6.91 | heav |
| ATOM | 3020 | CB | GLU | 2100 | 68.617 | 72.911 | -17.004 | 1.00 | 29.37 | heav |
| ATOM | 3021 | CG | GLU | 2100 | 67.789 | 74.136 | -16.912 | 1.00 | 29.37 | heav |
| ATOM | 3022 | CD | GLU | 2100 | 67.700 | 74.614 | -15.451 | 1.00 | 29.37 | heav |
| ATOM | 3023 | OE1 | GLU | 2100 | 67.919 | 73.797 | -14.491 | 1.00 | 29.37 | heav |
| ATOM | 3024 | OE2 | GLU | 2100 | 67.408 | 75.836 | -15.353 | 1.00 | 29.37 | heav |
| ATOM | 3025 | C | GLU | 2100 | 70.898 | 73.583 | -17.260 | 1.00 | 6.91 | heav |
| ATOM | 3026 | O | GLU | 2100 | 71.842 | 72.917 | -16.944 | 1.00 | 29.37 | heav |
| ATOM | 3027 | N | ALA | 2101 | 70.882 | 74.841 | -16.987 | 1.00 | 22.04 | heav |
| ATOM | 3029 | CA | ALA | 2101 | 71.933 | 75.560 | -16.305 | 1.00 | 22.04 | heav |
| ATOM | 3030 | CB | ALA | 2101 | 71.809 | 76.975 | -16.460 | 1.00 | 21.12 | heav |
| ATOM | 3031 | C | ALA | 2101 | 71.864 | 75.377 | -14.811 | 1.00 | 22.04 | heav |
| ATOM | 3032 | O | ALA | 2101 | 70.750 | 75.722 | -14.261 | 1.00 | 21.12 | heav |
| ATOM | 3033 | N | MET | 2102 | 73.045 | 75.133 | -14.236 | 1.00 | 29.21 | heav |
| ATOM | 3035 | CA | MET | 2102 | 73.070 | 74.779 | -12.907 | 1.00 | 29.21 | heav |
| ATOM | 3036 | CB | MET | 2102 | 74.330 | 74.078 | -12.704 | 1.00 | 32.83 | heav |
| ATOM | 3037 | CG | MET | 2102 | 74.108 | 72.647 | -13.150 | 1.00 | 32.83 | heav |
| ATOM | 3038 | SD | MET | 2102 | 72.688 | 71.760 | -12.361 | 1.00 | 32.83 | heav |
| ATOM | 3039 | CE | MET | 2102 | 71.347 | 72.317 | -13.327 | 1.00 | 32.83 | heav |
| ATOM | 3040 | C | MET | 2102 | 72.794 | 75.899 | -11.916 | 1.00 | 29.21 | heav |
| ATOM | 3041 | O | MET | 2102 | 71.597 | 76.121 | -11.733 | 1.00 | 32.83 | heav |
| ATOM | 3042 | N | PRO | 2103 | 73.638 | 76.796 | -11.318 | 1.00 | 55.25 | heav |
| ATOM | 3043 | CD | PRO | 2103 | 75.071 | 76.918 | -11.446 | 1.00 | 29.07 | heav |
| ATOM | 3044 | CA | PRO | 2103 | 73.012 | 77.795 | -10.361 | 1.00 | 55.25 | heav |
| ATOM | 3045 | CB | PRO | 2103 | 74.292 | 78.567 | -9.808 | 1.00 | 29.07 | heav |
| ATOM | 3046 | CG | PRO | 2103 | 75.534 | 77.679 | -10.182 | 1.00 | 29.07 | heav |
| ATOM | 3047 | C | PRO | 2103 | 71.967 | 78.763 | -11.110 | 1.00 | 55.25 | heav |
| ATOM | 3048 | O | PRO | 2103 | 72.309 | 79.572 | -12.036 | 1.00 | 29.07 | heav |
| ATOM | 3049 | N | TYR | 2104 | 70.722 | 78.276 | -10.887 | 1.00 | 61.67 | heav |
| ATOM | 3051 | CA | TYR | 2104 | 69.529 | 78.715 | -11.572 | 1.00 | 61.67 | heav |

| ATOM | 3052 | CB | TYR | 2104 | 68.312 | 78.279 | -10.609 | 1.00 | 131.10 | heav |
|------|------|-----|-----|------|--------|--------|---------|------|--------|------|
| ATOM | 3053 | CG | TYR | 2104 | 68.331 | 78.776 | -9.141 | 1.00 | 131.10 | heav |
| ATOM | 3054 | CD1 | TYR | 2104 | 67.902 | 80.080 | -8.831 | 1.00 | 131.10 | heav |
| ATOM | 3055 | CE1 | TYR | 2104 | 67.986 | 80.542 | -7.539 | 1.00 | 131.10 | heav |
| ATOM | 3056 | CD2 | TYR | 2104 | 68.829 | 77.910 | -8.120 | 1.00 | 131.10 | heav |
| ATOM | 3057 | CE2 | TYR | 2104 | 68.911 | 78.373 | -6.792 | 1.00 | 131.10 | heav |
| ATOM | 3058 | CZ | TYR | 2104 | 68.505 | 79.693 | -6.538 | 1.00 | 131.10 | heav |
| ATOM | 3059 | OH | TYR | 2104 | 68.673 | 80.189 | -5.247 | 1.00 | 131.10 | heav |
| ATOM | 3061 | C | TYR | 2104 | 69.391 | 80.178 | -12.066 | 1.00 | 61.67 | heav |
| ATOM | 3062 | O | TYR | 2104 | 70.061 | 80.675 | -13.001 | 1.00 | 131.10 | heav |
| ATOM | 3063 | N | GLY | 2105 | 68.382 | 80.846 | -11.448 | 1.00 | 87.82 | heav |
| ATOM | 3065 | CA | GLY | 2105 | 68.036 | 82.266 | -11.521 | 1.00 | 87.82 | heav |
| ATOM | 3066 | C | GLY | 2105 | 67.809 | 82.833 | -12.921 | 1.00 | 87.82 | heav |
| ATOM | 3067 | O | GLY | 2105 | 67.185 | 82.349 | -13.868 | 1.00 | 45.20 | heav |
| ATOM | 3068 | N | ASN | 2106 | 68.661 | 83.839 | -13.030 | 1.00 | 68.97 | heav |
| ATOM | 3070 | CA | ASN | 2106 | 68.617 | 84.697 | -14.187 | 1.00 | 68.97 | heav |
| ATOM | 3071 | CB | ASN | 2106 | 68.215 | 86.074 | -13.683 | 1.00 | 112.27 | heav |
| ATOM | 3072 | CG | ASN | 2106 | 67.550 | 86.085 | -12.276 | 1.00 | 112.27 | heav |
| ATOM | 3073 | OD1 | ASN | 2106 | 66.715 | 85.188 | -11.830 | 1.00 | 112.27 | heav |
| ATOM | 3074 | ND2 | ASN | 2106 | 68.097 | 87.109 | -11.524 | 1.00 | 112.27 | heav |
| ATOM | 3077 | C | ASN | 2106 | 70.032 | 84.636 | -14.702 | 1.00 | 68.97 | heav |
| ATOM | 3078 | O | ASN | 2106 | 70.691 | 85.657 | -14.948 | 1.00 | 112.27 | heav |
| ATOM | 3079 | N | GLN | 2107 | 70.598 | 83.457 | -14.577 | 1.00 | 59.18 | heav |
| ATOM | 3081 | CA | GLN | 2107 | 72.049 | 83.413 | -14.813 | 1.00 | 59.18 | heav |
| ATOM | 3082 | CB | GLN | 2107 | 72.862 | 82.934 | -13.582 | 1.00 | 60.85 | heav |
| ATOM | 3083 | CG | GLN | 2107 | 72.207 | 83.326 | -12.315 | 1.00 | 60.85 | heav. |
| ATOM | 3084 | CD | GLN | 2107 | 72.617 | 82.451 | -11.160 | 1.00 | 60.85 | heav |
| ATOM | 3085 | OE1 | GLN | 2107 | 73.725 | 81.829 | -11.231 | 1.00 | 60.85 | heav |
| ATOM | 3086 | NE2 | GLN | 2107 | 71.706 | 82.604 | -10.096 | 1.00 | 60.85 | heav |
| ATOM | 3089 | C | GLN | 2107 | 72.111 | 82.310 | -15.861 | 1.00 | 59.18 | heav |
| ATOM | 3090 | O | GLN | 2107 | 71.308 | 82.360 | -16.822 | 1.00 | 60.85 | heav |
| ATOM | 3091 | N | ALA | 2108 | 72.750 | 81.195 | -15.409 | 1.00 | 74.72 | heav |
| ATOM | 3093 | CA | ALA | 2108 | 73.083 | 80.035 | -16.196 | 1.00 | 74.72 | heav |
| ATOM | 3094 | CB | ALA | 2108 | 72.596 | 80.121 | -17.725 | 1.00 | 50.50 | heav |
| ATOM | 3095 | C | ALA | 2108 | 74.610 | 80.100 | -16.129 | 1.00 | 74.72 | heav |
| ATOM | 3096 | O | ALA | 2108 | 75.280 | 81.112 | -16.509 | 1.00 | 50.50 | heav |
| ATOM | 3097 | N | TYR | 2109 | 75.094 | 79.026 | -15.476 | 1.00 | 23.97 | heav |
| ATOM | 3099 | CA | TYR | 2109 | 76.537 | 78.863 | -15.369 | 1.00 | 23.97 | heav |
| ATOM | 3100 | CB | TYR | 2109 | 76.904 | 78.800 | -13.970 | 1.00 | 61.29 | heav |
| ATOM | 3101 | CG | TYR | 2109 | 77.946 | 79.788 | -13.643 | 1.00 | 61.29 | heav |
| ATOM | 3102 | CD1 | TYR | 2109 | 77.453 | 81.043 | -13.322 | 1.00 | 61.29 | heav |
| ATOM | 3103 | CE1 | TYR | 2109 | 78.321 | 82.009 | -13.114 | 1.00 | 61.29 | heav |
| ATOM | 3104 | CD2 | TYR | 2109 | 79.349 | 79.485 | -13.783 | 1.00 | 61.29 | heav |
| ATOM | 3105 | CE2 | TYR | 2109 | 80.207 | 80.563 | -13.560 | 1.00 | 61.29 | heav |
| ATOM | 3106 | CZ | TYR | 2109 | 79.676 | 81.802 | -13.232 | 1.00 | 61.29 | heav |
| ATOM | 3107 | OH | TYR | 2109 | 80.488 | 82.907 | -13.072 | 1.00 | 61.29 | heav |
| ATOM | 3109 | C | TYR | 2109 | 77.067 | 77.591 | -16.009 | 1.00 | 23.97 | heav |
| ATOM | 3110 | O | TYR | 2109 | 78.081 | 77.584 | -16.661 | 1.00 | 61.29 | heav |
| ATOM | 3111 | N | TYR | 2110 | 76.452 | 76.446 | -15.755 | 1.00 | 12.25 | heav |
| ATOM | 3113 | CA | TYR | 2110 | 76.857 | 75.154 | -16.371 | 1.00 | 12.25 | heav |
| ATOM | 3114 | CB | TYR | 2110 | 77.766 | 74.405 | -15.439 | 1.00 | 17.48 | heav |
| ATOM | 3115 | CG | TYR | 2110 | 78.396 | 73.175 | -16.042 | 1.00 | 17.48 | heav |
| ATOM | 3116 | CD1 | TYR | 2110 | 79.581 | 73.295 | -16.699 | 1.00 | 17.48 | heav |
| ATOM | 3117 | CE1 | TYR | 2110 | 80.121 | 72.149 | -17.268 | 1.00 | 17.48 | heav |
| ATOM | 3118 | CD2 | TYR | 2110 | 77.781 | 71.917 | -15.956 | 1.00 | 17.48 | heav |
| ATOM | 3119 | CE2 | TYR | 2110 | 78.323 | 70.783 | -16.522 | 1.00 | 17.48 | heav |
| ATOM | 3120 | CZ | TYR | 2110 | 79.490 | 70.934 | -17.170 | 1.00 | 17.48 | heav |
| ATOM | 3121 | OH | TYR | 2110 | 80.063 | 69.818 | -17.725 | 1.00 | 17.48 | heav |
| ATOM | 3123 | C | TYR | 2110 | 75.644 | 74.283 | -16.691 | 1.00 | 12.25 | heav |
| ATOM | 3124 | O | TYR | 2110 | 74.761 | 74.091 | -15.869 | 1.00 | 17.48 | heav |
| ATOM | 3125 | N | TYR | 2111 | 75.574 | 73.778 | -17.909 | 1.00 | 14.67 | heav |
| ATOM | 3127 | CA | TYR | 2111 | 74.412 | 73.053 | -18.425 | 1.00 | 14.67 | heav |
| ATOM | 3128 | CB | TYR | 2111 | 74.183 | 73.348 | -19.929 | 1.00 | 15.34 | heav |
| ATOM | 3129 | CG | TYR | 2111 | 73.786 | 74.808 | -20.135 | 1.00 | 15.34 | heav |
| ATOM | 3130 | CD1 | TYR | 2111 | 72.454 | 75.230 | -19.990 | 1.00 | 15.34 | heav |
| ATOM | 3131 | CE1 | TYR | 2111 | 72.121 | 76.579 | -20.123 | 1.00 | 15.34 | heav |
| ATOM | 3132 | CD2 | TYR | 2111 | 74.770 | 75.738 | -20.417 | 1.00 | 15.34 | heav |

| ATOM | 3133 | CE2 | TYR | 2111 | 74.444 | 77.073 | -20.551 | 1.00 | 15.34 | heav |
|------|------|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 3134 | CZ | TYR | 2111 | 73.134 | 77.466 | -20.408 | 1.00 | 15.34 | heav |
| ATOM | 3135 | OH | TYR | 2111 | 72.763 | 78.757 | -20.613 | 1.00 | 15.34 | heav |
| ATOM | 3137 | C | TYR | 2111 | 74.611 | 71.583 | -18.246 | 1.00 | 14.67 | heav |
| ATOM | 3138 | O | TYR | 2111 | 75.499 | 71.060 | -18.901 | 1.00 | 15.34 | heav |
| ATOM | 3139 | N | ALA | 2112 | 73.755 | 70.930 | -17.455 | 1.00 | 9.09 | heav |
| ATOM | 3141 | CA | ALA | 2112 | 73.776 | 69.515 | -17.198 | 1.00 | 9.09 | heav |
| ATOM | 3142 | CB | ALA | 2112 | 74.518 | 69.304 | -15.920 | 1.00 | 10.71 | heav |
| ATOM | 3143 | C | ALA | 2112 | 72.377 | 68.874 | -17.138 | 1.00 | 9.09 | heav |
| ATOM | 3144 | O | ALA | 2112 | 71.378 | 69.559 | -16.907 | 1.00 | 10.71 | heav |
| ATOM | 3145 | N | MET | 2113 | 72.192 | 67.597 | -17.505 | 1.00 | 7.59 | heav |
| ATOM | 3147 | CA | MET | 2113 | 70.894 | 66.929 | -17.530 | 1.00 | 7.59 | heav |
| ATOM | 3148 | CB | MET | 2113 | 70.850 | 65.744 | -18.506 | 1.00 | 17.45 | heav |
| ATOM | 3149 | CG | MET | 2113 | 71.285 | 66.007 | -19.930 | 1.00 | 17.45 | heav |
| ATOM | 3150 | SD | MET | 2113 | 71.277 | 64.565 | -20.997 | 1.00 | 17.45 | heav |
| ATOM | 3151 | CE | MET | 2113 | 72.976 | 64.118 | -21.077 | 1.00 | 17.45 | heav |
| ATOM | 3152 | C | MET | 2113 | 70.697 | 66.421 | -16.145 | 1.00 | 7.59 | heav |
| ATOM | 3153 | O | MET | 2113 | 71.173 | 65.404 | -15.673 | 1.00 | 17.45 | heav |
| ATOM | 3154 | N | ASP | 2114 | 70.060 | 67.299 | -15.472 | 1.00 | 15.57 | heav |
| ATOM | 3156 | CA | ASP | 2114 | 69.785 | 67.170 | -14.049 | 1.00 | 15.57 | heav |
| ATOM | 3157 | CB | ASP | 2114 | 69.755 | 68.579 | -13.451 | 1.00 | 16.10 | heav |
| ATOM | 3158 | CG | ASP | 2114 | 68.712 | 69.553 | -14.054 | 1.00 | 16.10 | heav |
| ATOM | 3159 | OD1 | ASP | 2114 | 68.276 | 69.319 | -15.200 | 1.00 | 16.10 | heav |
| ATOM | 3160 | OD2 | ASP | 2114 | 68.386 | 70.540 | -13.364 | 1.00 | 16.10 | heav |
| ATOM | 3161 | C | ASP | 2114 | 68.487 | 66.485 | -13.681 | 1.00 | 15.57 | heav |
| ATOM | 3162 | O | ASP | 2114 | 68.401 | 65.776 | -12.709 | 1.00 | 16.10 | heav |
| ATOM | 3163 | N | CYS | 2115 | 67.454 | 66.688 | -14.461 | 1.00 | 2.00 | heav |
| ATOM | 3165 | CA | CYS | 2115 | 66.139 | 66.199 | -14.142 | 1.00 | 2.00 | heav |
| ATOM | 3166 | CB | CYS | 2115 | 65.170 | 67.321 | -14.136 | 1.00 | 29.21 | heav |
| ATOM | 3167 | SG | CYS | 2115 | 63.604 | 66.893 | -13.353 | 1.00 | 29.21 | heav |
| ATOM | 3168 | C | CYS | 2115 | 65.622 | 65.186 | -15.129 | 1.00 | 2.00 | heav |
| ATOM | 3169 | O | CYS | 2115 | 65.442 | 65.597 | -16.260 | 1.00 | 29.21 | heav |
| ATOM | 3170 | N | TRP | 2116 | 65.335 | 63.926 | -14.789 | 1.00 | 7.53 | heav |
| ATOM | 3172 | CA | TRP | 2116 | 64.902 | 62.875 | -15.708 | 1.00 | 7.53 | heav |
| ATOM | 3173 | CB | TRP | 2116 | 65.899 | 61.689 | -15.627 | 1.00 | 13.08 | heav |
| ATOM | 3174 | CG | TRP | 2116 | 67.347 | 61.849 | -16.086 | 1.00 | 13.08 | heav |
| ATOM | 3175 | CD2 | TRP | 2116 | 67.996 | 61.024 | -16.966 | 1.00 | 13.08 | heav |
| ATOM | 3176 | CE2 | TRP | 2116 | 69.233 | 61.618 | -17.073 | 1.00 | 13.08 | heav |
| ATOM | 3177 | CE3 | TRP | 2116 | 67.711 | 59.889 | -17.683 | 1.00 | 13.08 | heav |
| ATOM | 3178 | CD1 | TRP | 2116 | 68.164 | 62.874 | -15.670 | 1.00 | 13.08 | heav |
| ATOM | 3179 | NE1 | TRP | 2116 | 69.304 | 62.710 | -16.299 | 1.00 | 13.08 | heav |
| ATOM | 3181 | CZ2 | TRP | 2116 | 70.204 | 61.085 | -17.877 | 1.00 | 13.08 | heav |
| ATOM | 3182 | CZ3 | TRP | 2116 | 68.680 | 59.360 | -18.491 | 1.00 | 13.08 | heav |
| ATOM | 3183 | CH2 | TRP | 2116 | 69.903 | 59.954 | -18.588 | 1.00 | 13.08 | heav |
| ATOM | 3184 | C | TRP | 2116 | 63.453 | 62.307 | -15.520 | 1.00 | 7.53 | heav |
| ATOM | 3185 | O | TRP | 2116 | 62.814 | 62.365 | -14.484 | 1.00 | 13.08 | heav |
| ATOM | 3186 | N | GLY | 2117 | 62.744 | 61.802 | -16.498 | 1.00 | 2.00 | heav |
| ATOM | 3188 | CA | GLY | 2117 | 61.501 | 61.125 | -16.266 | 1.00 | 2.00 | heav |
| ATOM | 3189 | C | GLY | 2117 | 61.800 | 59.745 | -15.697 | 1.00 | 2.00 | heav |
| ATOM | 3190 | O | GLY | 2117 | 62.956 | 59.421 | -15.406 | 1.00 | 7.51 | heav |
| ATOM | 3191 | N | GLN | 2118 | 60.850 | 58.834 | -15.597 | 1.00 | 2.00 | heav |
| ATOM | 3193 | CA | GLN | 2118 | 61.162 | 57.599 | -14.921 | 1.00 | 2.00 | heav |
| ATOM | 3194 | CB | GLN | 2118 | 59.966 | 57.337 | -14.048 | 1.00 | 29.66 | heav |
| ATOM | 3195 | CG | GLN | 2118 | 60.007 | 58.278 | -12.809 | 1.00 | 29.66 | heav |
| ATOM | 3196 | CD | GLN | 2118 | 58.715 | 59.099 | -12.581 | 1.00 | 29.66 | heav |
| ATOM | 3197 | OE1 | GLN | 2118 | 57.611 | 58.535 | -12.557 | 1.00 | 29.66 | heav |
| ATOM | 3198 | NE2 | GLN | 2118 | 58.712 | 60.437 | -12.407 | 1.00 | 29.66 | heav |
| ATOM | 3201 | C | GLN | 2118 | 61.560 | 56.405 | -15.747 | 1.00 | 2.00 | heav |
| ATOM | 3202 | O | GLN | 2118 | 62.179 | 55.434 | -15.322 | 1.00 | 29.66 | heav |
| ATOM | 3203 | N | GLY | 2119 | 61.264 | 56.634 | -17.010 | 1.00 | 11.48 | heav |
| ATOM | 3205 | CA | GLY | 2119 | 61.563 | 55.729 | -18.095 | 1.00 | 11.48 | heav |
| ATOM | 3206 | C | GLY | 2119 | 60.377 | 54.956 | -18.612 | 1.00 | 11.48 | heav |
| ATOM | 3207 | O | GLY | 2119 | 59.475 | 54.624 | -17.862 | 1.00 | 10.05 | heav |
| ATOM | 3208 | N | THR | 2120 | 60.261 | 54.645 | -19.891 | 1.00 | 7.93 | heav |
| ATOM | 3210 | CA | THR | 2120 | 59.154 | 53.820 | -20.372 | 1.00 | 7.93 | heav |
| ATOM | 3211 | CB | THR | 2120 | 58.222 | 54.662 | -21.259 | 1.00 | 6.01 | heav |
| ATOM | 3212 | OG1 | THR | 2120 | 57.115 | 53.799 | -21.487 | 1.00 | 6.01 | heav |

| ATOM | 3214 | CG2 | THR | 2120 | 58.812 | 55.163 | -22.564 | 1.00 | 6.01 | heav |
|------|------|-----|-----|------|--------|--------|---------|------|------|------|
| ATOM | 3215 | C | THR | 2120 | 59.781 | 52.666 | -21.129 | 1.00 | 7.93 | heav |
| ATOM | 3216 | O | THR | 2120 | 60.750 | 52.867 | -21.849 | 1.00 | 6.01 | heav |
| ATOM | 3217 | N | THR | 2121 | 59.417 | 51.415 | -20.842 | 1.00 | 2.00 | heav |
| ATOM | 3219 | CA | THR | 2121 | 59.971 | 50.261 | -21.557 | 1.00 | 2.00 | heav |
| ATOM | 3220 | CB | THR | 2121 | 59.823 | 48.924 | -20.872 | 1.00 | 22.55 | heav |
| ATOM | 3221 | OG1 | THR | 2121 | 60.127 | 49.212 | -19.520 | 1.00 | 22.55 | heav |
| ATOM | 3223 | CG2 | THR | 2121 | 60.785 | 47.807 | -21.363 | 1.00 | 22.55 | heav |
| ATOM | 3224 | C | THR | 2121 | 59.308 | 50.029 | -22.874 | 1.00 | 2.00 | heav |
| ATOM | 3225 | O | THR | 2121 | 58.106 | 50.002 | -22.978 | 1.00 | 22.55 | heav |
| ATOM | 3226 | N | VAL | 2122 | 60.108 | 49.917 | -23.913 | 1.00 | 9.08 | heav |
| ATOM | 3228 | CA | VAL | 2122 | 59.574 | 49.664 | -25.227 | 1.00 | 9.08 | heav |
| ATOM | 3229 | CB | VAL | 2122 | 59.874 | 50.869 | -26.101 | 1.00 | 2.00 | heav |
| ATOM | 3230 | CG1 | VAL | 2122 | 59.012 | 50.732 | -27.298 | 1.00 | 2.00 | heav |
| ATOM | 3231 | CG2 | VAL | 2122 | 59.506 | 52.168 | -25.470 | 1.00 | 9.08 | heav |
| ATOM | 3232 | C | VAL | 2122 | 60.247 | 48.387 | -25.732 | 1.00 | 2.00 | heav |
| ATOM | 3233 | O | VAL | 2122 | 61.474 | 48.298 | -25.777 | 1.00 | 2.00 | heav |
| ATOM | 3234 | N | THR | 2123 | 59.437 | 47.335 | -25.907 | 1.00 | 2.00 | heav |
| ATOM | 3236 | CA | THR | 2123 | 59.831 | 46.037 | -26.415 | 1.00 | 16.69 | heav |
| ATOM | 3237 | CB | THR | 2123 | 59.036 | 44.847 | -25.766 | 1.00 | 16.69 | heav |
| ATOM | 3238 | OG1 | THR | 2123 | 59.317 | 44.820 | -24.380 | 1.00 | 16.69 | heav |
| ATOM | 3240 | CG2 | THR | 2123 | 59.490 | 43.481 | -26.194 | 1.00 | 16.69 | heav |
| ATOM | 3241 | C | THR | 2123 | 59.468 | 46.097 | -27.881 | 1.00 | 2.00 | heav |
| ATOM | 3242 | O | THR | 2123 | 58.341 | 46.457 | -28.210 | 1.00 | 16.69 | heav |
| ATOM | 3243 | N | VAL | 2124 | 60.370 | 45.826 | -28.810 | 1.00 | 12.67 | heav |
| ATOM | 3245 | CA | VAL | 2124 | 60.082 | 45.757 | -30.236 | 1.00 | 12.67 | heav |
| ATOM | 3246 | CB | VAL | 2124 | 61.114 | 46.425 | -31.079 | 1.00 | 17.81 | heav |
| ATOM | 3247 | CG1 | VAL | 2124 | 60.807 | 46.190 | -32.525 | 1.00 | 17.81 | heav |
| ATOM | 3248 | CG2 | VAL | 2124 | 61.153 | 47.889 | -30.763 | 1.00 | 17.81 | heav |
| ATOM | 3249 | C | VAL | 2124 | 60.255 | 44.263 | -30.440 | 1.00 | 12.67 | heav |
| ATOM | 3250 | O | VAL | 2124 | 61.347 | 43.732 | -30.166 | 1.00 | 17.81 | heav |
| ATOM | 3251 | N | SER | 2125 | 59.170 | 43.580 | -30.808 | 1.00 | 11.96 | heav |
| ATOM | 3253 | CA | SER | 2125 | 59.171 | 42.118 | -30.979 | 1.00 | 11.96 | heav |
| ATOM | 3254 | CB | SER | 2125 | 58.955 | 41.258 | -29.735 | 1.00 | 18.11 | heav |
| ATOM | 3255 | OG | SER | 2125 | 59.061 | 39.852 | -30.014 | 1.00 | 18.11 | heav |
| ATOM | 3257 | C | SER | 2125 | 58.000 | 41.728 | -31.800 | 1.00 | 11.96 | heav |
| ATOM | 3258 | O | SER | 2125 | 57.151 | 42.578 | -31.993 | 1.00 | 18.11 | heav |
| ATOM | 3259 | N | SER | 2126 | 57.891 | 40.512 | -32.322 | 1.00 | 10.22 | heav |
| ATOM | 3261 | CA | SER | 2126 | 56.655 | 40.206 | -33.029 | 1.00 | 10.22 | heav |
| ATOM | 3262 | CB | SER | 2126 | 56.838 | 39.425 | -34.316 | 1.00 | 20.53 | heav |
| ATOM | 3263 | OG | SER | 2126 | 56.072 | 40.144 | -35.288 | 1.00 | 20.53 | heav |
| ATOM | 3265 | C | SER | 2126 | 55.689 | 39.393 | -32.211 | 1.00 | 10.22 | heav |
| ATOM | 3266 | O | SER | 2126 | 54.529 | 39.309 | -32.566 | 1.00 | 20.53 | heav |
| ATOM | 3267 | N | ALA | 2127 | 56.050 | 38.737 | -31.112 | 1.00 | 10.68 | heav |
| ATOM | 3269 | CA | ALA | 2127 | 55.092 | 37.946 | -30.317 | 1.00 | 10.68 | heav |
| ATOM | 3270 | CB | ALA | 2127 | 55.696 | 37.424 | -29.071 | 1.00 | 19.71 | heav |
| ATOM | 3271 | C | ALA | 2127 | 53.923 | 38.766 | -29.857 | 1.00 | 10.68 | heav |
| ATOM | 3272 | O | ALA | 2127 | 54.062 | 40.014 | -29.856 | 1.00 | 19.71 | heav |
| ATOM | 3273 | N | LYS | 2128 | 52.768 | 38.195 | -29.476 | 1.00 | 16.71 | heav |
| ATOM | 3275 | CA | LYS | 2128 | 51.820 | 39.203 | -29.036 | 1.00 | 16.71 | heav |
| ATOM | 3276 | CB | LYS | 2128 | 50.642 | 39.140 | -30.053 | 1.00 | 33.80 | heav |
| ATOM | 3277 | CG | LYS | 2128 | 51.018 | 39.901 | -31.456 | 1.00 | 33.80 | heav |
| ATOM | 3278 | CD | LYS | 2128 | 51.517 | 41.423 | -31.432 | 1.00 | 33.80 | heav |
| ATOM | 3279 | CE | LYS | 2128 | 52.859 | 41.792 | -32.186 | 1.00 | 33.80 | heav |
| ATOM | 3280 | NZ | LYS | 2128 | 53.647 | 42.857 | -31.544 | 1.00 | 33.80 | heav |
| ATOM | 3284 | C | LYS | 2128 | 51.446 | 39.131 | -27.586 | 1.00 | 16.71 | heav |
| ATOM | 3285 | O | LYS | 2128 | 51.873 | 38.194 | -26.926 | 1.00 | 33.80 | heav |
| ATOM | 3286 | N | THR | 2129 | 50.829 | 40.181 | -27.033 | 1.00 | 6.47 | heav |
| ATOM | 3288 | CA | THR | 2129 | 50.491 | 40.217 | -25.609 | 1.00 | 6.47 | heav |
| ATOM | 3289 | CB | THR | 2129 | 49.606 | 41.368 | -25.298 | 1.00 | 13.22 | heav |
| ATOM | 3290 | OG1 | THR | 2129 | 50.353 | 42.453 | -25.806 | 1.00 | 13.22 | heav |
| ATOM | 3292 | CG2 | THR | 2129 | 49.383 | 41.680 | -23.860 | 1.00 | 13.22 | heav |
| ATOM | 3293 | C | THR | 2129 | 49.836 | 39.004 | -25.030 | 1.00 | 6.47 | heav |
| ATOM | 3294 | O | THR | 2129 | 48.940 | 38.385 | -25.580 | 1.00 | 13.22 | heav |
| ATOM | 3295 | N | THR | 2130 | 50.393 | 38.589 | -23.920 | 1.00 | 7.77 | heav |
| ATOM | 3297 | CA | THR | 2130 | 49.908 | 37.407 | -23.249 | 1.00 | 7.77 | heav |
| ATOM | 3298 | CB | THR | 2130 | 50.777 | 36.207 | -23.660 | 1.00 | 22.05 | heav |

| ATOM | 3299 | OG1 | THR | 2130 | 50.627 | 36.030 | -25.081 | 1.00 | 22.05 | heav |
|------|------|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 3301 | CG2 | THR | 2130 | 50.325 | 34.907 | -23.035 | 1.00 | 22.05 | heav |
| ATOM | 3302 | C   | THR | 2130 | 49.880 | 37.598 | -21.757 | 1.00 | 7.77  | heav |
| ATOM | 3303 | O   | THR | 2130 | 50.728 | 38.239 | -21.131 | 1.00 | 22.05 | heav |
| ATOM | 3304 | N   | PRO | 2131 | 48.768 | 37.246 | -21.168 | 1.00 | 8.77  | heav |
| ATOM | 3305 | CD  | PRO | 2131 | 47.584 | 36.758 | -21.831 | 1.00 | 13.26 | heav |
| ATOM | 3306 | CA  | PRO | 2131 | 48.467 | 37.536 | -19.807 | 1.00 | 8.77  | heav |
| ATOM | 3307 | CB  | PRO | 2131 | 47.033 | 37.328 | -19.754 | 1.00 | 13.26 | heav |
| ATOM | 3308 | CG  | PRO | 2131 | 46.552 | 37.557 | -21.120 | 1.00 | 13.26 | heav |
| ATOM | 3309 | C   | PRO | 2131 | 49.245 | 36.611 | -18.883 | 1.00 | 8.77  | heav |
| ATOM | 3310 | O   | PRO | 2131 | 49.454 | 35.468 | -19.272 | 1.00 | 13.26 | heav |
| ATOM | 3311 | N   | PRO | 2132 | 49.662 | 37.002 | -17.663 | 1.00 | 8.88  | heav |
| ATOM | 3312 | CD  | PRO | 2132 | 49.345 | 38.284 | -17.043 | 1.00 | 9.87  | heav |
| ATOM | 3313 | CA  | PRO | 2132 | 50.353 | 36.161 | -16.718 | 1.00 | 8.88  | heav |
| ATOM | 3314 | CB  | PRO | 2132 | 50.812 | 37.115 | -15.687 | 1.00 | 9.87  | heav |
| ATOM | 3315 | CG  | PRO | 2132 | 49.674 | 38.101 | -15.595 | 1.00 | 9.87  | heav |
| ATOM | 3316 | C   | PRO | 2132 | 49.512 | 35.054 | -16.121 | 1.00 | 8.88  | heav |
| ATOM | 3317 | O   | PRO | 2132 | 48.282 | 35.126 | -16.102 | 1.00 | 9.87  | heav |
| ATOM | 3318 | N   | SER | 2133 | 50.106 | 34.040 | -15.544 | 1.00 | 2.00  | heav |
| ATOM | 3320 | CA  | SER | 2133 | 49.359 | 33.101 | -14.769 | 1.00 | 2.00  | heav |
| ATOM | 3321 | CB  | SER | 2133 | 49.479 | 31.797 | -15.345 | 1.00 | 13.04 | heav |
| ATOM | 3322 | OG  | SER | 2133 | 48.225 | 31.818 | -15.918 | 1.00 | 13.04 | heav |
| ATOM | 3324 | C   | SER | 2133 | 49.915 | 33.066 | -13.394 | 1.00 | 2.00  | heav |
| ATOM | 3325 | O   | SER | 2133 | 51.047 | 32.654 | -13.220 | 1.00 | 13.04 | heav |
| ATOM | 3326 | N   | VAL | 2134 | 49.257 | 33.537 | -12.376 | 1.00 | 10.69 | heav |
| ATOM | 3328 | CA  | VAL | 2134 | 49.837 | 33.500 | -11.038 | 1.00 | 10.69 | heav |
| ATOM | 3329 | CB  | VAL | 2134 | 49.587 | 34.904 | -10.385 | 1.00 | 11.42 | heav |
| ATOM | 3330 | CG1 | VAL | 2134 | 48.255 | 35.420 | -10.765 | 1.00 | 11.42 | heav |
| ATOM | 3331 | CG2 | VAL | 2134 | 49.650 | 34.840 | -8.882  | 1.00 | 11.42 | heav |
| ATOM | 3332 | C   | VAL | 2134 | 49.381 | 32.335 | -10.172 | 1.00 | 10.69 | heav |
| ATOM | 3333 | O   | VAL | 2134 | 48.208 | 31.996 | -10.069 | 1.00 | 11.42 | heav |
| ATOM | 3334 | N   | TYR | 2135 | 50.370 | 31.633 | -9.629  | 1.00 | 8.23  | heav |
| ATOM | 3336 | CA  | TYR | 2135 | 50.152 | 30.433 | -8.843  | 1.00 | 8.23  | heav |
| ATOM | 3337 | CB  | TYR | 2135 | 50.959 | 29.262 | -9.420  | 1.00 | 6.77  | heav |
| ATOM | 3338 | CG  | TYR | 2135 | 50.517 | 28.912 | -10.847 | 1.00 | 6.77  | heav |
| ATOM | 3339 | CD1 | TYR | 2135 | 49.230 | 28.444 | -11.100 | 1.00 | 6.77  | heav |
| ATOM | 3340 | CE1 | TYR | 2135 | 48.803 | 28.187 | -12.401 | 1.00 | 6.77  | heav |
| ATOM | 3341 | CD2 | TYR | 2135 | 51.366 | 29.116 | -11.933 | 1.00 | 6.77  | heav |
| ATOM | 3342 | CE2 | TYR | 2135 | 50.933 | 28.858 | -13.238 | 1.00 | 6.77  | heav |
| ATOM | 3343 | CZ  | TYR | 2135 | 49.651 | 28.383 | -13.467 | 1.00 | 6.77  | heav |
| ATOM | 3344 | OH  | TYR | 2135 | 49.257 | 27.999 | -14.733 | 1.00 | 6.77  | heav |
| ATOM | 3346 | C   | TYR | 2135 | 50.596 | 30.736 | -7.438  | 1.00 | 8.23  | heav |
| ATOM | 3347 | O   | TYR | 2135 | 51.581 | 31.438 | -7.284  | 1.00 | 6.77  | heav |
| ATOM | 3348 | N   | PRO | 2136 | 49.932 | 30.367 | -6.356  | 1.00 | 7.82  | heav |
| ATOM | 3349 | CD  | PRO | 2136 | 48.583 | 29.818 | -6.342  | 1.00 | 14.32 | heav |
| ATOM | 3350 | CA  | PRO | 2136 | 50.383 | 30.621 | -5.018  | 1.00 | 7.82  | heav |
| ATOM | 3351 | CB  | PRO | 2136 | 49.128 | 30.657 | -4.266  | 1.00 | 14.32 | heav |
| ATOM | 3352 | CG  | PRO | 2136 | 48.297 | 29.564 | -4.872  | 1.00 | 14.32 | heav |
| ATOM | 3353 | C   | PRO | 2136 | 51.330 | 29.537 | -4.575  | 1.00 | 7.82  | heav |
| ATOM | 3354 | O   | PRO | 2136 | 51.053 | 28.330 | -4.671  | 1.00 | 14.32 | heav |
| ATOM | 3355 | N   | LEU | 2137 | 52.477 | 29.913 | -4.076  | 1.00 | 9.01  | heav |
| ATOM | 3357 | CA  | LEU | 2137 | 53.428 | 28.953 | -3.589  | 1.00 | 9.01  | heav |
| ATOM | 3358 | CB  | LEU | 2137 | 54.823 | 29.386 | -3.916  | 1.00 | 17.89 | heav |
| ATOM | 3359 | CG  | LEU | 2137 | 55.207 | 29.676 | -5.334  | 1.00 | 17.89 | heav |
| ATOM | 3360 | CD1 | LEU | 2137 | 56.690 | 29.871 | -5.454  | 1.00 | 17.89 | heav |
| ATOM | 3361 | CD2 | LEU | 2137 | 54.808 | 28.499 | -6.170  | 1.00 | 17.89 | heav |
| ATOM | 3362 | C   | LEU | 2137 | 53.275 | 28.934 | -2.105  | 1.00 | 9.01  | heav |
| ATOM | 3363 | O   | LEU | 2137 | 53.743 | 29.838 | -1.446  | 1.00 | 17.89 | heav |
| ATOM | 3364 | N   | ALA | 2138 | 52.562 | 27.994 | -1.550  | 1.00 | 34.99 | heav |
| ATOM | 3366 | CA  | ALA | 2138 | 52.391 | 27.881 | -0.089  | 1.00 | 34.99 | heav |
| ATOM | 3367 | CB  | ALA | 2138 | 50.917 | 27.783 | 0.304   | 1.00 | 33.08 | heav |
| ATOM | 3368 | C   | ALA | 2138 | 53.084 | 26.622 | 0.474   | 1.00 | 34.99 | heav |
| ATOM | 3369 | O   | ALA | 2138 | 53.129 | 25.535 | -0.123  | 1.00 | 33.08 | heav |
| ATOM | 3370 | N   | PRO | 2139 | 53.696 | 26.672 | 1.629   | 1.00 | 19.82 | heav |
| ATOM | 3371 | CD  | PRO | 2139 | 53.643 | 27.797 | 2.514   | 1.00 | 28.19 | heav |
| ATOM | 3372 | CA  | PRO | 2139 | 54.492 | 25.586 | 2.083   | 1.00 | 19.82 | heav |
| ATOM | 3373 | CB  | PRO | 2139 | 55.345 | 26.143 | 3.142   | 1.00 | 28.19 | heav |

| ATOM | 3374 | CG | PRO | 2139 | 54.852 | 27.566 | 3.376 | 1.00 | 28.19 | heav |
|------|------|-----|------|------|--------|--------|--------|------|-------|------|
| ATOM | 3375 | C | PRO | 2139 | 53.621 | 24.479 | 2.600 | 1.00 | 19.82 | heav |
| ATOM | 3376 | O | PRO | 2139 | 52.531 | 24.651 | 3.187 | 1.00 | 28.19 | heav |
| ATOM | 3377 | N | GLY | 2140 | 54.337 | 23.348 | 2.434 | 1.00 | 66.78 | heav |
| ATOM | 3379 | CA | GLY | 2140 | 53.986 | 22.027 | 2.945 | 1.00 | 66.78 | heav |
| ATOM | 3380 | C | GLY | 2140 | 54.557 | 21.872 | 4.379 | 1.00 | 66.78 | heav |
| ATOM | 3381 | O | GLY | 2140 | 55.550 | 21.164 | 4.699 | 1.00 | 45.95 | heav |
| ATOM | 3382 | N | SER | 2141 | 53.752 | 22.552 | 5.258 | 1.00 | 81.12 | heav |
| ATOM | 3384 | CA | SER | 2141 | 53.975 | 22.623 | 6.715 | 1.00 | 81.12 | heav |
| ATOM | 3385 | CB | SER | 2141 | 53.710 | 21.172 | 7.448 | 1.00 | 95.01 | heav |
| ATOM | 3386 | OG | SER | 2141 | 52.635 | 21.325 | 8.478 | 1.00 | 95.01 | heav |
| ATOM | 3388 | C | SER | 2141 | 55.368 | 23.171 | 7.042 | 1.00 | 81.12 | heav |
| ATOM | 3389 | O | SER | 2141 | 56.474 | 22.587 | 7.009 | 1.00 | 95.01 | heav |
| ATOM | 3390 | N | ALA | 2142 | 55.089 | 24.513 | 7.194 | 1.00 | 72.58 | heav |
| ATOM | 3392 | CA | ALA | 2142 | 56.124 | 25.530 | 7.542 | 1.00 | 72.58 | heav |
| ATOM | 3393 | CB | ALA | 2142 | 55.820 | 27.010 | 7.450 | 1.00 | 46.53 | heav |
| ATOM | 3394 | C | ALA | 2142 | 56.517 | 25.476 | 8.967 | 1.00 | 72.58 | heav |
| ATOM | 3395 | O | ALA | 2142 | 57.776 | 25.610 | 9.120 | 1.00 | 46.53 | heav |
| ATOM | 3396 | N | ALA | 2143 | 55.371 | 25.578 | 9.877 | 1.00 | 58.51 | heav |
| ATOM | 3398 | CA | ALA | 2143 | 55.306 | 25.231 | 11.348 | 1.00 | 58.51 | heav |
| ATOM | 3399 | CB | ALA | 2143 | 54.069 | 24.263 | 11.731 | 1.00 | 53.51 | heav |
| ATOM | 3400 | C | ALA | 2143 | 56.504 | 24.601 | 12.074 | 1.00 | 58.51 | heav |
| ATOM | 3401 | O | ALA | 2143 | 56.734 | 24.810 | 13.281 | 1.00 | 53.51 | heav |
| ATOM | 3402 | N | GLN | 2144 | 57.293 | 23.779 | 11.345 | 1.00 | 65.00 | heav |
| ATOM | 3404 | CA | GLN | 2144 | 58.610 | 23.183 | 11.602 | 1.00 | 65.00 | heav |
| ATOM | 3405 | CB | GLN | 2144 | 58.447 | 22.048 | 12.716 | 1.00 | 45.42 | heav. |
| ATOM | 3406 | CG | GLN | 2144 | 58.441 | 22.832 | 14.120 | 1.00 | 45.42 | heav |
| ATOM | 3407 | CD | GLN | 2144 | 59.343 | 24.104 | 14.338 | 1.00 | 45.42 | heav |
| ATOM | 3408 | OE1 | GLN | 2144 | 60.422 | 24.087 | 14.947 | 1.00 | 45.42 | heav |
| ATOM | 3409 | NE2 | GLN | 2144 | 59.146 | 25.303 | 13.794 | 1.00 | 45.42 | heav |
| ATOM | 3412 | C | GLN | 2144 | 59.620 | 22.717 | 10.465 | 1.00 | 65.00 | heav |
| ATOM | 3413 | O | GLN | 2144 | 59.934 | 21.572 | 10.046 | 1.00 | 45.42 | heav |
| ATOM | 3414 | N | THR | 2145 | 60.133 | 23.903 | 10.011 | 1.00 | 52.38 | heav |
| ATOM | 3416 | CA | THR | 2145 | 61.319 | 24.132 | 9.129 | 1.00 | 52.38 | heav |
| ATOM | 3417 | CB | THR | 2145 | 61.033 | 23.955 | 7.552 | 1.00 | 51.61 | heav |
| ATOM | 3418 | OG1 | THR | 2145 | 62.291 | 23.434 | 7.003 | 1.00 | 51.61 | heav |
| ATOM | 3420 | CG2 | THR | 2145 | 60.442 | 25.190 | 6.793 | 1.00 | 51.61 | heav |
| ATOM | 3421 | C | THR | 2145 | 61.662 | 25.613 | 9.421 | 1.00 | 52.38 | heav |
| ATOM | 3422 | O | THR | 2145 | 62.017 | 26.463 | 8.617 | 1.00 | 51.61 | heav |
| ATOM | 3423 | N | ASN | 2146 | 61.466 | 25.807 | 10.763 | 1.00 | 76.55 | heav |
| ATOM | 3425 | CA | ASN | 2146 | 61.506 | 26.961 | 11.681 | 1.00 | 76.55 | heav |
| ATOM | 3426 | CB | ASN | 2146 | 62.794 | 27.727 | 11.190 | 1.00 | 49.14 | heav |
| ATOM | 3427 | CG | ASN | 2146 | 63.955 | 26.700 | 11.262 | 1.00 | 49.14 | heav |
| ATOM | 3428 | OD1 | ASN | 2146 | 64.177 | 25.773 | 10.467 | 1.00 | 49.14 | heav |
| ATOM | 3429 | ND2 | ASN | 2146 | 64.831 | 26.683 | 12.184 | 1.00 | 49.14 | heav |
| ATOM | 3432 | C | ASN | 2146 | 60.147 | 27.717 | 11.908 | 1.00 | 76.55 | heav |
| ATOM | 3433 | O | ASN | 2146 | 59.053 | 27.193 | 11.630 | 1.00 | 49.14 | heav |
| ATOM | 3434 | N | SER | 2147 | 60.215 | 28.869 | 12.609 | 1.00 | 33.57 | heav |
| ATOM | 3436 | CA | SER | 2147 | 58.983 | 29.669 | 12.933 | 1.00 | 33.57 | heav |
| ATOM | 3437 | CB | SER | 2147 | 58.782 | 29.817 | 14.495 | 1.00 | 38.50 | heav |
| ATOM | 3438 | OG | SER | 2147 | 59.826 | 30.667 | 15.051 | 1.00 | 38.50 | heav |
| ATOM | 3440 | C | SER | 2147 | 58.939 | 31.115 | 12.358 | 1.00 | 33.57 | heav |
| ATOM | 3441 | O | SER | 2147 | 58.415 | 32.100 | 12.924 | 1.00 | 38.50 | heav |
| ATOM | 3442 | N | MET | 2148 | 59.371 | 31.181 | 11.085 | 1.00 | 30.12 | heav |
| ATOM | 3444 | CA | MET | 2148 | 59.415 | 32.358 | 10.202 | 1.00 | 30.12 | heav |
| ATOM | 3445 | CB | MET | 2148 | 60.801 | 32.875 | 10.058 | 1.00 | 40.58 | heav |
| ATOM | 3446 | CG | MET | 2148 | 60.978 | 33.943 | 11.078 | 1.00 | 40.58 | heav |
| ATOM | 3447 | SD | MET | 2148 | 59.997 | 35.308 | 10.357 | 1.00 | 40.58 | heav |
| ATOM | 3448 | CE | MET | 2148 | 61.238 | 36.537 | 9.960 | 1.00 | 40.58 | heav |
| ATOM | 3449 | C | MET | 2148 | 59.012 | 31.703 | 8.932 | 1.00 | 30.12 | heav |
| ATOM | 3450 | O | MET | 2148 | 59.625 | 30.716 | 8.544 | 1.00 | 40.58 | heav |
| ATOM | 3451 | N | VAL | 2149 | 57.903 | 32.062 | 8.346 | 1.00 | 16.62 | heav |
| ATOM | 3453 | CA | VAL | 2149 | 57.483 | 31.411 | 7.120 | 1.00 | 16.62 | heav |
| ATOM | 3454 | CB | VAL | 2149 | 56.031 | 31.084 | 7.186 | 1.00 | 11.84 | heav |
| ATOM | 3455 | CG1 | VAL | 2149 | 55.727 | 30.066 | 6.158 | 1.00 | 11.84 | heav |
| ATOM | 3456 | CG2 | VAL | 2149 | 55.642 | 30.459 | 8.495 | 1.00 | 11.84 | heav |
| ATOM | 3457 | C | VAL | 2149 | 57.702 | 32.303 | 5.919 | 1.00 | 16.62 | heav |

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| ATOM | 3458 | O | VAL | 2149 | 57.436 | 33.500 | 6.010 | 1.00 | 11.84 | heav |
| ATOM | 3459 | N | THR | 2150 | 58.281 | 31.656 | 4.876 | 1.00 | 13.15 | heav |
| ATOM | 3461 | CA | THR | 2150 | 58.513 | 32.134 | 3.502 | 1.00 | 13.15 | heav |
| ATOM | 3462 | CB | THR | 2150 | 59.877 | 31.729 | 2.901 | 1.00 | 14.24 | heav |
| ATOM | 3463 | OG1 | THR | 2150 | 60.980 | 31.966 | 3.767 | 1.00 | 14.24 | heav |
| ATOM | 3465 | CG2 | THR | 2150 | 60.153 | 32.622 | 1.728 | 1.00 | 14.24 | heav |
| ATOM | 3466 | C | THR | 2150 | 57.448 | 31.501 | 2.611 | 1.00 | 13.15 | heav |
| ATOM | 3467 | O | THR | 2150 | 57.051 | 30.329 | 2.670 | 1.00 | 14.24 | heav |
| ATOM | 3468 | N | LEU | 2151 | 56.871 | 32.480 | 1.928 | 1.00 | 26.52 | heav |
| ATOM | 3470 | CA | LEU | 2151 | 55.718 | 32.306 | 1.028 | 1.00 | 26.52 | heav |
| ATOM | 3471 | CB | LEU | 2151 | 54.495 | 32.973 | 1.642 | 1.00 | 21.19 | heav |
| ATOM | 3472 | CG | LEU | 2151 | 54.073 | 32.728 | 3.091 | 1.00 | 21.19 | heav |
| ATOM | 3473 | CD1 | LEU | 2151 | 52.908 | 33.641 | 3.419 | 1.00 | 21.19 | heav |
| ATOM | 3474 | CD2 | LEU | 2151 | 53.690 | 31.263 | 3.279 | 1.00 | 21.19 | heav |
| ATOM | 3475 | C | LEU | 2151 | 55.930 | 32.916 | -0.365 | 1.00 | 26.52 | heav |
| ATOM | 3476 | O | LEU | 2151 | 56.790 | 33.803 | -0.498 | 1.00 | 21.19 | heav |
| ATOM | 3477 | N | GLY | 2152 | 55.225 | 32.514 | -1.423 | 1.00 | 14.39 | heav |
| ATOM | 3479 | CA | GLY | 2152 | 55.484 | 33.167 | -2.694 | 1.00 | 14.39 | heav |
| ATOM | 3480 | C | GLY | 2152 | 54.431 | 33.086 | -3.786 | 1.00 | 14.39 | heav |
| ATOM | 3481 | O | GLY | 2152 | 53.356 | 32.497 | -3.718 | 1.00 | 5.95 | heav |
| ATOM | 3482 | N | CYS | 2153 | 54.820 | 33.692 | -4.888 | 1.00 | 9.65 | heav |
| ATOM | 3484 | CA | CYS | 2153 | 53.944 | 33.790 | -6.029 | 1.00 | 9.65 | heav |
| ATOM | 3485 | C | CYS | 2153 | 54.639 | 33.418 | -7.290 | 1.00 | 9.65 | heav |
| ATOM | 3486 | O | CYS | 2153 | 55.722 | 33.923 | -7.538 | 1.00 | 17.39 | heav |
| ATOM | 3487 | CB | CYS | 2153 | 53.470 | 35.180 | -6.168 | 1.00 | 17.39 | heav |
| ATOM | 3488 | SG | CYS | 2153 | 51.732 | 35.135 | -5.776 | 1.00 | 17.39 | heav. |
| ATOM | 3489 | N | LEU | 2154 | 54.128 | 32.543 | -8.105 | 1.00 | 6.05 | heav |
| ATOM | 3491 | CA | LEU | 2154 | 54.792 | 32.270 | -9.332 | 1.00 | 6.05 | heav |
| ATOM | 3492 | CB | LEU | 2154 | 54.725 | 30.826 | -9.627 | 1.00 | 2.00 | heav |
| ATOM | 3493 | CG | LEU | 2154 | 55.975 | 30.088 | -9.993 | 1.00 | 2.00 | heav |
| ATOM | 3494 | CD1 | LEU | 2154 | 55.466 | 28.868 | -10.698 | 1.00 | 2.00 | heav |
| ATOM | 3495 | CD2 | LEU | 2154 | 56.871 | 30.768 | -10.977 | 1.00 | 2.00 | heav |
| ATOM | 3496 | C | LEU | 2154 | 54.037 | 33.047 | -10.366 | 1.00 | 6.05 | heav |
| ATOM | 3497 | O | LEU | 2154 | 52.820 | 32.945 | -10.407 | 1.00 | 2.00 | heav |
| ATOM | 3498 | N | VAL | 2155 | 54.672 | 33.895 | -11.153 | 1.00 | 2.00 | heav |
| ATOM | 3500 | CA | VAL | 2155 | 53.992 | 34.564 | -12.247 | 1.00 | 2.00 | heav |
| ATOM | 3501 | CB | VAL | 2155 | 54.180 | 36.061 | -12.118 | 1.00 | 2.00 | heav |
| ATOM | 3502 | CG1 | VAL | 2155 | 53.402 | 36.842 | -13.137 | 1.00 | 2.00 | heav |
| ATOM | 3503 | CG2 | VAL | 2155 | 53.665 | 36.436 | -10.761 | 1.00 | 2.00 | heav |
| ATOM | 3504 | C | VAL | 2155 | 54.524 | 34.047 | -13.558 | 1.00 | 2.00 | heav |
| ATOM | 3505 | O | VAL | 2155 | 55.674 | 34.144 | -13.926 | 1.00 | 2.00 | heav |
| ATOM | 3506 | N | LYS | 2156 | 53.663 | 33.468 | -14.330 | 1.00 | 2.00 | heav |
| ATOM | 3508 | CA | LYS | 2156 | 54.132 | 32.726 | -15.440 | 1.00 | 2.00 | heav |
| ATOM | 3509 | CB | LYS | 2156 | 53.980 | 31.281 | -15.006 | 1.00 | 6.27 | heav |
| ATOM | 3510 | CG | LYS | 2156 | 54.218 | 30.058 | -15.901 | 1.00 | 6.27 | heav |
| ATOM | 3511 | CD | LYS | 2156 | 55.243 | 29.108 | -15.275 | 1.00 | 6.27 | heav |
| ATOM | 3512 | CE | LYS | 2156 | 55.113 | 27.706 | -15.801 | 1.00 | 6.27 | heav |
| ATOM | 3513 | NZ | LYS | 2156 | 55.486 | 27.643 | -17.183 | 1.00 | 6.27 | heav |
| ATOM | 3517 | C | LYS | 2156 | 53.484 | 32.990 | -16.741 | 1.00 | 2.00 | heav |
| ATOM | 3518 | O | LYS | 2156 | 52.301 | 33.237 | -16.785 | 1.00 | 6.27 | heav |
| ATOM | 3519 | N | GLY | 2157 | 54.275 | 32.913 | -17.788 | 1.00 | 9.33 | heav |
| ATOM | 3521 | CA | GLY | 2157 | 53.734 | 32.876 | -19.125 | 1.00 | 9.33 | heav |
| ATOM | 3522 | C | GLY | 2157 | 53.111 | 34.130 | -19.690 | 1.00 | 9.33 | heav |
| ATOM | 3523 | O | GLY | 2157 | 52.033 | 34.106 | -20.272 | 1.00 | 18.25 | heav |
| ATOM | 3524 | N | TYR | 2158 | 53.851 | 35.221 | -19.571 | 1.00 | 10.81 | heav |
| ATOM | 3526 | CA | TYR | 2158 | 53.430 | 36.484 | -20.098 | 1.00 | 10.81 | heav |
| ATOM | 3527 | CB | TYR | 2158 | 53.112 | 37.432 | -18.924 | 1.00 | 2.00 | heav |
| ATOM | 3528 | CG | TYR | 2158 | 54.260 | 37.835 | -18.017 | 1.00 | 2.00 | heav |
| ATOM | 3529 | CD1 | TYR | 2158 | 54.907 | 39.023 | -18.207 | 1.00 | 2.00 | heav |
| ATOM | 3530 | CE1 | TYR | 2158 | 55.958 | 39.398 | -17.403 | 1.00 | 2.00 | heav |
| ATOM | 3531 | CD2 | TYR | 2158 | 54.670 | 37.023 | -17.002 | 1.00 | 2.00 | heav |
| ATOM | 3532 | CE2 | TYR | 2158 | 55.710 | 37.382 | -16.192 | 1.00 | 2.00 | heav |
| ATOM | 3533 | CZ | TYR | 2158 | 56.362 | 38.564 | -16.396 | 1.00 | 2.00 | heav |
| ATOM | 3534 | OH | TYR | 2158 | 57.491 | 38.891 | -15.637 | 1.00 | 2.00 | heav |
| ATOM | 3536 | C | TYR | 2158 | 54.462 | 37.103 | -21.022 | 1.00 | 10.81 | heav |
| ATOM | 3537 | O | TYR | 2158 | 55.678 | 36.864 | -20.981 | 1.00 | 2.00 | heav |
| ATOM | 3538 | N | PHE | 2159 | 53.920 | 37.904 | -21.917 | 1.00 | 10.49 | heav |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 3540 | CA | PHE | 2159 | 54.730 | 38.793 | -22.740 | 1.00 | 10.49 | heav |
| ATOM | 3541 | CB | PHE | 2159 | 54.968 | 38.127 | -24.067 | 1.00 | 11.32 | heav |
| ATOM | 3542 | CG | PHE | 2159 | 56.025 | 38.832 | -24.879 | 1.00 | 11.32 | heav |
| ATOM | 3543 | CD1 | PHE | 2159 | 55.656 | 39.691 | -25.880 | 1.00 | 11.32 | heav |
| ATOM | 3544 | CD2 | PHE | 2159 | 57.355 | 38.585 | -24.614 | 1.00 | 11.32 | heav |
| ATOM | 3545 | CE1 | PHE | 2159 | 56.647 | 40.280 | -26.614 | 1.00 | 11.32 | heav |
| ATOM | 3546 | CE2 | PHE | 2159 | 58.331 | 39.184 | -25.360 | 1.00 | 11.32 | heav |
| ATOM | 3547 | CZ | PHE | 2159 | 57.977 | 40.039 | -26.365 | 1.00 | 11.32 | heav |
| ATOM | 3548 | C | PHE | 2159 | 53.923 | 40.097 | -22.908 | 1.00 | 10.49 | heav |
| ATOM | 3549 | O | PHE | 2159 | 52.699 | 39.957 | -22.773 | 1.00 | 11.32 | heav |
| ATOM | 3550 | N | CPR | 2160 | 54.368 | 41.384 | -22.975 | 1.00 | 9.43 | heav |
| ATOM | 3551 | CD | CPR | 2160 | 53.604 | 42.427 | -23.682 | 1.00 | 5.46 | heav |
| ATOM | 3552 | CA | CPR | 2160 | 55.742 | 41.865 | -22.850 | 1.00 | 9.43 | heav |
| ATOM | 3553 | CB | CPR | 2160 | 55.804 | 43.116 | -23.634 | 1.00 | 5.46 | heav |
| ATOM | 3554 | CG | CPR | 2160 | 54.404 | 43.681 | -23.556 | 1.00 | 5.46 | heav |
| ATOM | 3555 | C | CPR | 2160 | 56.087 | 42.133 | -21.406 | 1.00 | 9.43 | heav |
| ATOM | 3556 | O | CPR | 2160 | 55.238 | 41.843 | -20.562 | 1.00 | 5.46 | heav |
| ATOM | 3557 | N | GLU | 2161 | 57.287 | 42.655 | -21.093 | 1.00 | 9.25 | heav |
| ATOM | 3559 | CA | GLU | 2161 | 57.640 | 43.127 | -19.748 | 1.00 | 9.25 | heav |
| ATOM | 3560 | CB | GLU | 2161 | 59.097 | 43.095 | -19.657 | 1.00 | 2.00 | heav |
| ATOM | 3561 | CG | GLU | 2161 | 59.506 | 41.813 | -19.062 | 1.00 | 2.00 | heav |
| ATOM | 3562 | CD | GLU | 2161 | 59.950 | 41.894 | -17.620 | 1.00 | 2.00 | heav |
| ATOM | 3563 | OE1 | GLU | 2161 | 59.120 | 41.754 | -16.730 | 1.00 | 2.00 | heav |
| ATOM | 3564 | OE2 | GLU | 2161 | 61.149 | 42.058 | -17.405 | 1.00 | 2.00 | heav |
| ATOM | 3565 | C | GLU | 2161 | 57.118 | 44.554 | -19.583 | 1.00 | 9.25 | heav |
| ATOM | 3566 | O | GLU | 2161 | 57.161 | 45.249 | -20.591 | 1.00 | 2.00 | heav |
| ATOM | 3567 | N | CPR | 2162 | 56.737 | 45.191 | -18.486 | 1.00 | 5.69 | heav |
| ATOM | 3568 | CD | CPR | 2162 | 56.449 | 46.618 | -18.452 | 1.00 | 12.62 | heav |
| ATOM | 3569 | CA | CPR | 2162 | 56.750 | 44.708 | -17.133 | 1.00 | 5.69 | heav |
| ATOM | 3570 | CB | CPR | 2162 | 57.168 | 45.912 | -16.364 | 1.00 | 12.62 | heav |
| ATOM | 3571 | CG | CPR | 2162 | 56.268 | 46.947 | -16.978 | 1.00 | 12.62 | heav |
| ATOM | 3572 | C | CPR | 2162 | 55.548 | 44.081 | -16.512 | 1.00 | 5.69 | heav |
| ATOM | 3573 | O | CPR | 2162 | 54.402 | 44.268 | -16.932 | 1.00 | 12.62 | heav |
| ATOM | 3574 | N | VAL | 2163 | 55.842 | 43.379 | -15.450 | 1.00 | 13.78 | heav |
| ATOM | 3576 | CA | VAL | 2163 | 54.780 | 42.929 | -14.579 | 1.00 | 13.78 | heav |
| ATOM | 3577 | CB | VAL | 2163 | 54.777 | 41.372 | -14.435 | 1.00 | 11.53 | heav |
| ATOM | 3578 | CG1 | VAL | 2163 | 55.048 | 40.824 | -13.038 | 1.00 | 11.53 | heav |
| ATOM | 3579 | CG2 | VAL | 2163 | 53.363 | 40.933 | -14.711 | 1.00 | 11.53 | heav |
| ATOM | 3580 | C | VAL | 2163 | 55.093 | 43.602 | -13.238 | 1.00 | 13.78 | heav |
| ATOM | 3581 | O | VAL | 2163 | 56.271 | 43.800 | -12.871 | 1.00 | 11.53 | heav |
| ATOM | 3582 | N | THR | 2164 | 54.058 | 44.002 | -12.489 | 1.00 | 21.59 | heav |
| ATOM | 3584 | CA | THR | 2164 | 54.367 | 44.449 | -11.144 | 1.00 | 21.59 | heav |
| ATOM | 3585 | CB | THR | 2164 | 54.157 | 46.068 | -11.042 | 1.00 | 20.72 | heav |
| ATOM | 3586 | OG1 | THR | 2164 | 53.179 | 46.304 | -10.052 | 1.00 | 20.72 | heav |
| ATOM | 3588 | CG2 | THR | 2164 | 53.762 | 46.789 | -12.363 | 1.00 | 20.72 | heav |
| ATOM | 3589 | C | THR | 2164 | 53.627 | 43.640 | -10.060 | 1.00 | 21.59 | heav |
| ATOM | 3590 | O | THR | 2164 | 52.438 | 43.356 | -10.072 | 1.00 | 20.72 | heav |
| ATOM | 3591 | N | VAL | 2165 | 54.462 | 43.068 | -9.186 | 1.00 | 20.94 | heav |
| ATOM | 3593 | CA | VAL | 2165 | 54.077 | 42.253 | -8.055 | 1.00 | 20.94 | heav |
| ATOM | 3594 | CB | VAL | 2165 | 54.912 | 40.996 | -8.025 | 1.00 | 12.28 | heav |
| ATOM | 3595 | CG1 | VAL | 2165 | 54.427 | 40.078 | -6.940 | 1.00 | 12.28 | heav |
| ATOM | 3596 | CG2 | VAL | 2165 | 54.859 | 40.338 | -9.374 | 1.00 | 12.28 | heav |
| ATOM | 3597 | C | VAL | 2165 | 54.307 | 43.010 | -6.757 | 1.00 | 20.94 | heav |
| ATOM | 3598 | O | VAL | 2165 | 55.422 | 43.506 | -6.567 | 1.00 | 12.28 | heav |
| ATOM | 3599 | N | THR | 2166 | 53.322 | 43.132 | -5.857 | 1.00 | 6.18 | heav |
| ATOM | 3601 | CA | THR | 2166 | 53.478 | 43.736 | -4.539 | 1.00 | 6.18 | heav |
| ATOM | 3602 | CB | THR | 2166 | 52.790 | 45.143 | -4.371 | 1.00 | 9.46 | heav |
| ATOM | 3603 | OG1 | THR | 2166 | 51.554 | 45.007 | -3.691 | 1.00 | 9.46 | heav |
| ATOM | 3605 | CG2 | THR | 2166 | 52.410 | 45.774 | -5.725 | 1.00 | 9.46 | heav |
| ATOM | 3606 | C | THR | 2166 | 52.828 | 42.824 | -3.542 | 1.00 | 6.18 | heav |
| ATOM | 3607 | O | THR | 2166 | 51.891 | 42.062 | -3.851 | 1.00 | 9.46 | heav |
| ATOM | 3608 | N | TRP | 2167 | 53.225 | 43.030 | -2.281 | 1.00 | 28.07 | heav |
| ATOM | 3610 | CA | TRP | 2167 | 52.578 | 42.182 | -1.266 | 1.00 | 28.07 | heav |
| ATOM | 3611 | CB | TRP | 2167 | 53.593 | 41.556 | -0.384 | 1.00 | 13.41 | heav |
| ATOM | 3612 | CG | TRP | 2167 | 54.255 | 40.495 | -1.244 | 1.00 | 13.41 | heav |
| ATOM | 3613 | CD2 | TRP | 2167 | 53.854 | 39.201 | -1.348 | 1.00 | 13.41 | heav |
| ATOM | 3614 | CE2 | TRP | 2167 | 54.782 | 38.722 | -2.217 | 1.00 | 13.41 | heav |

| ATOM | 3615 | CE3 | TRP | 2167 | 52.897 | 38.363 | -0.857 | 1.00 | 13.41 | heav |
|------|------|-----|-----|------|--------|--------|--------|------|-------|------|
| ATOM | 3616 | CD1 | TRP | 2167 | 55.351 | 40.812 | -2.000 | 1.00 | 13.41 | heav |
| ATOM | 3617 | NE1 | TRP | 2167 | 55.626 | 39.697 | -2.570 | 1.00 | 13.41 | heav |
| ATOM | 3619 | CZ2 | TRP | 2167 | 54.800 | 37.410 | -2.623 | 1.00 | 13.41 | heav |
| ATOM | 3620 | CZ3 | TRP | 2167 | 52.903 | 37.036 | -1.256 | 1.00 | 13.41 | heav |
| ATOM | 3621 | CH2 | TRP | 2167 | 53.850 | 36.549 | -2.131 | 1.00 | 13.41 | heav |
| ATOM | 3622 | C | TRP | 2167 | 51.576 | 42.872 | -0.392 | 1.00 | 28.07 | heav |
| ATOM | 3623 | O | TRP | 2167 | 51.802 | 44.051 | -0.126 | 1.00 | 13.41 | heav |
| ATOM | 3624 | N | ASN | 2168 | 50.489 | 42.226 | 0.037 | 1.00 | 12.75 | heav |
| ATOM | 3626 | CA | ASN | 2168 | 49.432 | 42.866 | 0.797 | 1.00 | 12.75 | heav |
| ATOM | 3627 | CB | ASN | 2168 | 49.852 | 42.907 | 2.237 | 1.00 | 24.68 | heav |
| ATOM | 3628 | CG | ASN | 2168 | 49.360 | 41.666 | 2.936 | 1.00 | 24.68 | heav |
| ATOM | 3629 | OD1 | ASN | 2168 | 48.852 | 40.720 | 2.365 | 1.00 | 24.68 | heav |
| ATOM | 3630 | ND2 | ASN | 2168 | 49.401 | 41.482 | 4.221 | 1.00 | 24.68 | heav |
| ATOM | 3633 | C | ASN | 2168 | 49.055 | 44.256 | 0.326 | 1.00 | 12.75 | heav |
| ATOM | 3634 | O | ASN | 2168 | 49.010 | 45.226 | 1.064 | 1.00 | 24.68 | heav |
| ATOM | 3635 | N | SER | 2169 | 48.903 | 44.485 | -0.950 | 1.00 | 25.41 | heav |
| ATOM | 3637 | CA | SER | 2169 | 48.624 | 45.840 | -1.537 | 1.00 | 25.41 | heav |
| ATOM | 3638 | CB | SER | 2169 | 47.261 | 46.383 | -1.127 | 1.00 | 36.54 | heav |
| ATOM | 3639 | OG | SER | 2169 | 46.319 | 45.380 | -1.544 | 1.00 | 36.54 | heav |
| ATOM | 3641 | C | SER | 2169 | 49.622 | 46.953 | -1.227 | 1.00 | 25.41 | heav |
| ATOM | 3642 | O | SER | 2169 | 49.424 | 48.155 | -1.398 | 1.00 | 36.54 | heav |
| ATOM | 3643 | N | GLY | 2170 | 50.807 | 46.512 | -0.857 | 1.00 | 19.45 | heav |
| ATOM | 3645 | CA | GLY | 2170 | 51.903 | 47.374 | -0.469 | 1.00 | 19.45 | heav |
| ATOM | 3646 | C | GLY | 2170 | 52.159 | 47.330 | 1.033 | 1.00 | 19.45 | heay |
| ATOM | 3647 | O | GLY | 2170 | 53.259 | 47.645 | 1.496 | 1.00 | 30.51 | heav |
| ATOM | 3648 | N | SER | 2171 | 51.197 | 46.883 | 1.838 | 1.00 | 15.00 | heav |
| ATOM | 3650 | CA | SER | 2171 | 51.355 | 46.867 | 3.275 | 1.00 | 15.00 | heav |
| ATOM | 3651 | CB | SER | 2171 | 49.952 | 46.983 | 3.883 | 1.00 | 35.75 | heav |
| ATOM | 3652 | OG | SER | 2171 | 49.113 | 45.842 | 3.697 | 1.00 | 35.75 | heav |
| ATOM | 3654 | C | SER | 2171 | 52.104 | 45.636 | 3.812 | 1.00 | 15.00 | heav |
| ATOM | 3655 | O | SER | 2171 | 51.671 | 44.896 | 4.725 | 1.00 | 35.75 | heav |
| ATOM | 3656 | N | LEU | 2172 | 53.276 | 45.408 | 3.202 | 1.00 | 33.05 | heav |
| ATOM | 3658 | CA | LEU | 2172 | 54.199 | 44.274 | 3.444 | 1.00 | 33.05 | heav |
| ATOM | 3659 | CB | LEU | 2172 | 53.397 | 42.968 | 3.400 | 1.00 | 27.07 | heav |
| ATOM | 3660 | CG | LEU | 2172 | 53.956 | 41.571 | 3.586 | 1.00 | 27.07 | heav |
| ATOM | 3661 | CD1 | LEU | 2172 | 54.752 | 41.369 | 4.883 | 1.00 | 27.07 | heav |
| ATOM | 3662 | CD2 | LEU | 2172 | 52.738 | 40.669 | 3.517 | 1.00 | 27.07 | heav |
| ATOM | 3663 | C | LEU | 2172 | 55.317 | 44.291 | 2.367 | 1.00 | 33.05 | heav |
| ATOM | 3664 | O | LEU | 2172 | 55.198 | 43.809 | 1.223 | 1.00 | 27.07 | heav |
| ATOM | 3665 | N | SER | 2173 | 56.352 | 45.043 | 2.743 | 1.00 | 19.96 | heav |
| ATOM | 3667 | CA | SER | 2173 | 57.494 | 45.378 | 1.878 | 1.00 | 19.96 | heav |
| ATOM | 3668 | CB | SER | 2173 | 57.629 | 46.865 | 1.676 | 1.00 | 37.11 | heav |
| ATOM | 3669 | OG | SER | 2173 | 58.125 | 47.492 | 2.879 | 1.00 | 37.11 | heav |
| ATOM | 3671 | C | SER | 2173 | 58.822 | 44.927 | 2.501 | 1.00 | 19.96 | heav |
| ATOM | 3672 | O | SER | 2173 | 59.883 | 44.795 | 1.884 | 1.00 | 37.11 | heav |
| ATOM | 3673 | N | SER | 2174 | 58.893 | 44.800 | 3.821 | 1.00 | 32.74 | heav |
| ATOM | 3675 | CA | SER | 2174 | 60.070 | 44.212 | 4.497 | 1.00 | 32.74 | heav |
| ATOM | 3676 | CB | SER | 2174 | 59.991 | 44.358 | 6.018 | 1.00 | 35.13 | heav |
| ATOM | 3677 | OG | SER | 2174 | 58.690 | 44.891 | 6.341 | 1.00 | 35.13 | heav |
| ATOM | 3679 | C | SER | 2174 | 60.055 | 42.732 | 4.157 | 1.00 | 32.74 | heav |
| ATOM | 3680 | O | SER | 2174 | 58.962 | 42.156 | 4.056 | 1.00 | 35.13 | heav |
| ATOM | 3681 | N | GLY | 2175 | 61.207 | 42.132 | 3.779 | 1.00 | 20.90 | heav |
| ATOM | 3683 | CA | GLY | 2175 | 61.292 | 40.685 | 3.576 | 1.00 | 20.90 | heav |
| ATOM | 3684 | C | GLY | 2175 | 60.690 | 40.161 | 2.283 | 1.00 | 20.90 | heav |
| ATOM | 3685 | O | GLY | 2175 | 60.605 | 38.944 | 2.118 | 1.00 | 28.14 | heav |
| ATOM | 3686 | N | VAL | 2176 | 60.313 | 41.088 | 1.377 | 1.00 | 19.68 | heav |
| ATOM | 3688 | CA | VAL | 2176 | 59.880 | 40.899 | -0.018 | 1.00 | 19.68 | heav |
| ATOM | 3689 | CB | VAL | 2176 | 59.050 | 42.146 | -0.483 | 1.00 | 16.95 | heav |
| ATOM | 3690 | CG1 | VAL | 2176 | 58.588 | 42.087 | -1.931 | 1.00 | 16.95 | heav |
| ATOM | 3691 | CG2 | VAL | 2176 | 57.760 | 42.165 | 0.299 | 1.00 | 16.95 | heav |
| ATOM | 3692 | C | VAL | 2176 | 61.049 | 40.688 | -1.007 | 1.00 | 19.68 | heav |
| ATOM | 3693 | O | VAL | 2176 | 62.034 | 41.453 | -1.013 | 1.00 | 16.95 | heav |
| ATOM | 3694 | N | HIS | 2177 | 61.044 | 39.643 | -1.861 | 1.00 | 18.49 | heav |
| ATOM | 3696 | CA | HIS | 2177 | 62.078 | 39.464 | -2.871 | 1.00 | 18.49 | heav |
| ATOM | 3697 | CB | HIS | 2177 | 62.969 | 38.326 | -2.569 | 1.00 | 20.37 | heav |
| ATOM | 3698 | CG | HIS | 2177 | 63.918 | 38.608 | -1.439 | 1.00 | 20.37 | heav |

| ATOM | 3699 | CD2 | HIS | 2177 | 64.147 | 37.720 | -0.437 | 1.00 | 20.37 | heav |
|------|------|-----|-----|------|--------|--------|--------|------|-------|------|
| ATOM | 3700 | ND1 | HIS | 2177 | 64.668 | 39.687 | -1.244 | 1.00 | 20.37 | heav |
| ATOM | 3702 | CE1 | HIS | 2177 | 65.352 | 39.478 | -0.155 | 1.00 | 20.37 | heav |
| ATOM | 3703 | NE2 | HIS | 2177 | 65.029 | 38.296 | 0.313 | 1.00 | 20.37 | heav |
| ATOM | 3705 | C | HIS | 2177 | 61.465 | 39.181 | -4.217 | 1.00 | 18.49 | heav |
| ATOM | 3706 | O | HIS | 2177 | 60.669 | 38.253 | -4.364 | 1.00 | 20.37 | heav |
| ATOM | 3707 | N | THR | 2178 | 61.803 | 39.987 | -5.203 | 1.00 | 4.94 | heav |
| ATOM | 3709 | CA | THR | 2178 | 61.199 | 39.773 | -6.484 | 1.00 | 4.94 | heav |
| ATOM | 3710 | CB | THR | 2178 | 60.381 | 40.959 | -6.906 | 1.00 | 13.23 | heav |
| ATOM | 3711 | OG1 | THR | 2178 | 59.465 | 41.199 | -5.839 | 1.00 | 13.23 | heav |
| ATOM | 3713 | CG2 | THR | 2178 | 59.608 | 40.709 | -8.186 | 1.00 | 13.23 | heav |
| ATOM | 3714 | C | THR | 2178 | 62.300 | 39.548 | -7.467 | 1.00 | 4.94 | heav |
| ATOM | 3715 | O | THR | 2178 | 63.233 | 40.337 | -7.594 | 1.00 | 13.23 | heav |
| ATOM | 3716 | N | PHE | 2179 | 62.246 | 38.399 | -8.104 | 1.00 | 10.43 | heav |
| ATOM | 3718 | CA | PHE | 2179 | 63.307 | 37.997 | -8.978 | 1.00 | 10.43 | heav |
| ATOM | 3719 | CB | PHE | 2179 | 63.320 | 36.460 | -8.940 | 1.00 | 2.00 | heav |
| ATOM | 3720 | CG | PHE | 2179 | 63.718 | 36.003 | -7.535 | 1.00 | 2.00 | heav |
| ATOM | 3721 | CD1 | PHE | 2179 | 65.051 | 35.975 | -7.191 | 1.00 | 2.00 | heav |
| ATOM | 3722 | CD2 | PHE | 2179 | 62.742 | 35.668 | -6.591 | 1.00 | 2.00 | heav |
| ATOM | 3723 | CE1 | PHE | 2179 | 65.404 | 35.664 | -5.916 | 1.00 | 2.00 | heav |
| ATOM | 3724 | CE2 | PHE | 2179 | 63.104 | 35.351 | -5.309 | 1.00 | 2.00 | heav |
| ATOM | 3725 | CZ | PHE | 2179 | 64.442 | 35.342 | -4.977 | 1.00 | 2.00 | heav |
| ATOM | 3726 | C | PHE | 2179 | 63.131 | 38.590 | -10.354 | 1.00 | 10.43 | heav |
| ATOM | 3727 | O | PHE | 2179 | 62.019 | 38.834 | -10.840 | 1.00 | 2.00 | heav |
| ATOM | 3728 | N | PRO | 2180 | 64.227 | 38.956 | -11.000 | 1.00 | 2.00 | heav |
| ATOM | 3729 | CD | PRO | 2180 | 65.508 | 39.231 | -10.374 | 1.00 | 9.22 | heav |
| ATOM | 3730 | CA | PRO | 2180 | 64.240 | 39.377 | -12.391 | 1.00 | 2.00 | heav |
| ATOM | 3731 | CB | PRO | 2180 | 65.691 | 39.538 | -12.659 | 1.00 | 9.22 | heav |
| ATOM | 3732 | CG | PRO | 2180 | 66.146 | 40.168 | -11.378 | 1.00 | 9.22 | heav |
| ATOM | 3733 | C | PRO | 2180 | 63.542 | 38.375 | -13.274 | 1.00 | 2.00 | heav |
| ATOM | 3734 | O | PRO | 2180 | 63.765 | 37.180 | -13.105 | 1.00 | 9.22 | heav |
| ATOM | 3735 | N | ALA | 2181 | 62.639 | 38.732 | -14.172 | 1.00 | 9.13 | heav |
| ATOM | 3737 | CA | ALA | 2181 | 62.014 | 37.699 | -14.964 | 1.00 | 9.13 | heav |
| ATOM | 3738 | CB | ALA | 2181 | 60.876 | 38.298 | -15.774 | 1.00 | 11.87 | heav |
| ATOM | 3739 | C | ALA | 2181 | 62.982 | 36.989 | -15.886 | 1.00 | 9.13 | heav |
| ATOM | 3740 | O | ALA | 2181 | 64.060 | 37.496 | -16.194 | 1.00 | 11.87 | heav |
| ATOM | 3741 | N | VAL | 2182 | 62.682 | 35.757 | -16.271 | 1.00 | 4.75 | heav |
| ATOM | 3743 | CA | VAL | 2182 | 63.511 | 35.094 | -17.254 | 1.00 | 4.75 | heav |
| ATOM | 3744 | CB | VAL | 2182 | 64.314 | 33.952 | -16.571 | 1.00 | 7.77 | heav |
| ATOM | 3745 | CG1 | VAL | 2182 | 65.557 | 34.640 | -16.079 | 1.00 | 7.77 | heav |
| ATOM | 3746 | CG2 | VAL | 2182 | 63.741 | 33.358 | -15.305 | 1.00 | 7.77 | heav |
| ATOM | 3747 | C | VAL | 2182 | 62.700 | 34.598 | -18.435 | 1.00 | 4.75 | heav |
| ATOM | 3748 | O | VAL | 2182 | 61.751 | 33.830 | -18.394 | 1.00 | 7.77 | heav |
| ATOM | 3749 | N | LEU | 2183 | 63.051 | 35.195 | -19.551 | 1.00 | 11.06 | heav |
| ATOM | 3751 | CA | LEU | 2183 | 62.371 | 34.958 | -20.817 | 1.00 | 11.06 | heav |
| ATOM | 3752 | CB | LEU | 2183 | 62.882 | 35.850 | -21.930 | 1.00 | 34.44 | heav |
| ATOM | 3753 | CG | LEU | 2183 | 62.037 | 35.982 | -23.211 | 1.00 | 34.44 | heav |
| ATOM | 3754 | CD1 | LEU | 2183 | 62.651 | 37.152 | -23.941 | 1.00 | 34.44 | heav |
| ATOM | 3755 | CD2 | LEU | 2183 | 62.037 | 34.767 | -24.144 | 1.00 | 34.44 | heav |
| ATOM | 3756 | C | LEU | 2183 | 62.553 | 33.574 | -21.325 | 1.00 | 11.06 | heav |
| ATOM | 3757 | O | LEU | 2183 | 63.650 | 33.258 | -21.752 | 1.00 | 34.44 | heav |
| ATOM | 3758 | N | GLN | 2184 | 61.540 | 32.772 | -21.420 | 1.00 | 28.73 | heav |
| ATOM | 3760 | CA | GLN | 2184 | 61.799 | 31.458 | -21.980 | 1.00 | 28.73 | heav |
| ATOM | 3761 | CB | GLN | 2184 | 61.967 | 30.460 | -20.794 | 1.00 | 60.05 | heav |
| ATOM | 3762 | CG | GLN | 2184 | 61.940 | 28.956 | -21.126 | 1.00 | 60.05 | heav |
| ATOM | 3763 | CD | GLN | 2184 | 62.939 | 28.526 | -22.223 | 1.00 | 60.05 | heav |
| ATOM | 3764 | OE1 | GLN | 2184 | 62.714 | 28.737 | -23.428 | 1.00 | 60.05 | heav |
| ATOM | 3765 | NE2 | GLN | 2184 | 64.099 | 27.917 | -21.971 | 1.00 | 60.05 | heav |
| ATOM | 3768 | C | GLN | 2184 | 60.764 | 30.968 | -23.001 | 1.00 | 28.73 | heav |
| ATOM | 3769 | O | GLN | 2184 | 59.580 | 30.764 | -22.706 | 1.00 | 60.05 | heav |
| ATOM | 3770 | N | SER | 2185 | 61.235 | 30.750 | -24.238 | 1.00 | 32.81 | heav |
| ATOM | 3772 | CA | SER | 2185 | 60.406 | 30.350 | -25.394 | 1.00 | 32.81 | heav |
| ATOM | 3773 | CB | SER | 2185 | 59.877 | 28.880 | -25.284 | 1.00 | 48.35 | heav |
| ATOM | 3774 | OG | SER | 2185 | 58.651 | 28.529 | -24.609 | 1.00 | 48.35 | heav |
| ATOM | 3776 | C | SER | 2185 | 59.207 | 31.274 | -25.589 | 1.00 | 32.81 | heav |
| ATOM | 3777 | O | SER | 2185 | 57.991 | 31.012 | -25.534 | 1.00 | 48.35 | heav |
| ATOM | 3778 | N | ASP | 2186 | 59.745 | 32.502 | -25.662 | 1.00 | 17.87 | heav |

| ATOM | 3780 | CA  | ASP | 2186 | 58.945 | 33.694 | -25.846 | 1.00 | 17.87 | heav  |
|------|------|-----|-----|------|--------|--------|---------|------|-------|-------|
| ATOM | 3781 | CB  | ASP | 2186 | 58.058 | 33.583 | -27.005 | 1.00 | 37.73 | heav  |
| ATOM | 3782 | CG  | ASP | 2186 | 58.504 | 34.707 | -27.892 | 1.00 | 37.73 | heav  |
| ATOM | 3783 | OD1 | ASP | 2186 | 59.342 | 34.414 | -28.777 | 1.00 | 37.73 | heav  |
| ATOM | 3784 | OD2 | ASP | 2186 | 58.020 | 35.840 | -27.661 | 1.00 | 37.73 | heav  |
| ATOM | 3785 | C   | ASP | 2186 | 58.062 | 34.193 | -24.764 | 1.00 | 17.87 | heav  |
| ATOM | 3786 | O   | ASP | 2186 | 57.526 | 35.262 | -24.947 | 1.00 | 37.73 | heav  |
| ATOM | 3787 | N   | LEU | 2187 | 57.869 | 33.467 | -23.677 | 1.00 | 12.36 | heav  |
| ATOM | 3789 | CA  | LEU | 2187 | 57.104 | 33.977 | -22.557 | 1.00 | 12.36 | heav  |
| ATOM | 3790 | CB  | LEU | 2187 | 55.971 | 33.103 | -22.198 | 1.00 | 17.92 | heav  |
| ATOM | 3791 | CG  | LEU | 2187 | 54.766 | 33.134 | -23.075 | 1.00 | 17.92 | heav  |
| ATOM | 3792 | CD1 | LEU | 2187 | 54.335 | 34.537 | -23.465 | 1.00 | 17.92 | heav  |
| ATOM | 3793 | CD2 | LEU | 2187 | 55.146 | 32.410 | -24.307 | 1.00 | 17.92 | heav  |
| ATOM | 3794 | C   | LEU | 2187 | 57.929 | 34.094 | -21.309 | 1.00 | 12.36 | heav  |
| ATOM | 3795 | O   | LEU | 2187 | 58.713 | 33.191 | -21.027 | 1.00 | 17.92 | heav  |
| ATOM | 3796 | N   | TYR | 2188 | 57.850 | 35.203 | -20.562 | 1.00 | 13.67 | heav  |
| ATOM | 3798 | CA  | TYR | 2188 | 58.560 | 35.333 | -19.266 | 1.00 | 13.67 | heav  |
| ATOM | 3799 | CB  | TYR | 2188 | 58.730 | 36.779 | -18.817 | 1.00 | 13.16 | heav  |
| ATOM | 3800 | CG  | TYR | 2188 | 59.347 | 37.752 | -19.778 | 1.00 | 13.16 | heav  |
| ATOM | 3801 | CD1 | TYR | 2188 | 60.679 | 38.037 | -19.729 | 1.00 | 13.16 | heav  |
| ATOM | 3802 | CE1 | TYR | 2188 | 61.235 | 38.852 | -20.669 | 1.00 | 13.16 | heav  |
| ATOM | 3803 | CD2 | TYR | 2188 | 58.532 | 38.275 | -20.729 | 1.00 | 13.16 | heav  |
| ATOM | 3804 | CE2 | TYR | 2188 | 59.070 | 39.102 | -21.674 | 1.00 | 13.16 | heav  |
| ATOM | 3805 | CZ  | TYR | 2188 | 60.408 | 39.380 | -21.641 | 1.00 | 13.16 | heav  |
| ATOM | 3806 | OH  | TYR | 2188 | 60.896 | 40.202 | -22.639 | 1.00 | 13.16 | heav  |
| ATOM | 3808 | C   | TYR | 2188 | 57.923 | 34.657 | -18.034 | 1.00 | 13.67 | heav  |
| ATOM | 3809 | O   | TYR | 2188 | 56.709 | 34.445 | -17.878 | 1.00 | 13.16 | heav  |
| ATOM | 3810 | N   | THR | 2189 | 58.793 | 34.409 | -17.078 | 1.00 | 2.00  | heav  |
| ATOM | 3812 | CA  | THR | 2189 | 58.371 | 33.877 | -15.807 | 1.00 | 2.00  | heav  |
| ATOM | 3813 | CB  | THR | 2189 | 58.731 | 32.469 | -15.677 | 1.00 | 6.62  | heav  |
| ATOM | 3814 | OG1 | THR | 2189 | 58.105 | 31.874 | -16.783 | 1.00 | 6.62  | heav  |
| ATOM | 3816 | CG2 | THR | 2189 | 58.257 | 31.815 | -14.426 | 1.00 | 6.62  | heav  |
| ATOM | 3817 | C   | THR | 2189 | 59.096 | 34.626 | -14.759 | 1.00 | 2.00  | heav  |
| ATOM | 3818 | O   | THR | 2189 | 60.284 | 34.876 | -14.878 | 1.00 | 6.62  | heav  |
| ATOM | 3819 | N   | LEU | 2190 | 58.394 | 34.961 | -13.717 | 1.00 | 7.85  | heav  |
| ATOM | 3821 | CA  | LEU | 2190 | 58.941 | 35.710 | -12.609 | 1.00 | 7.85  | heav  |
| ATOM | 3822 | CB  | LEU | 2190 | 58.470 | 37.135 | -12.780 | 1.00 | 4.67  | heav  |
| ATOM | 3823 | CG  | LEU | 2190 | 58.562 | 38.160 | -11.734 | 1.00 | 4.67  | heav  |
| ATOM | 3824 | CD1 | LEU | 2190 | 58.900 | 39.398 | -12.458 | 1.00 | 4.67  | heav  |
| ATOM | 3825 | CD2 | LEU | 2190 | 57.297 | 38.304 | -10.933 | 1.00 | 4.67  | heav  |
| ATOM | 3826 | C   | LEU | 2190 | 58.492 | 35.145 | -11.298 | 1.00 | 7.85  | heav  |
| ATOM | 3827 | O   | LEU | 2190 | 57.455 | 34.513 | -11.245 | 1.00 | 4.67  | heav  |
| ATOM | 3828 | N   | SER | 2191 | 59.190 | 35.319 | -10.201 | 1.00 | 9.27  | heav  |
| ATOM | 3830 | CA  | SER | 2191 | 58.626 | 34.913 | -8.909  | 1.00 | 9.27  | heav  |
| ATOM | 3831 | CB  | SER | 2191 | 59.080 | 33.516 | -8.497  | 1.00 | 25.53 | heav  |
| ATOM | 3832 | OG  | SER | 2191 | 60.465 | 33.348 | -8.837  | 1.00 | 25.53 | heav  |
| ATOM | 3834 | C   | SER | 2191 | 58.983 | 35.867 | -7.810  | 1.00 | 9.27  | heav  |
| ATOM | 3835 | O   | SER | 2191 | 59.873 | 36.679 | -7.928  | 1.00 | 25.53 | heav  |
| ATOM | 3836 | N   | SER | 2192 | 58.283 | 35.852 | -6.706  | 1.00 | 12.64 | heav  |
| ATOM | 3838 | CA  | SER | 2192 | 58.438 | 36.826 | -5.624  | 1.00 | 12.64 | heav  |
| ATOM | 3839 | CB  | SER | 2192 | 57.424 | 37.955 | -5.761  | 1.00 | 10.40 | heav  |
| ATOM | 3840 | OG  | SER | 2192 | 57.561 | 39.175 | -5.057  | 1.00 | 10.40 | heav  |
| ATOM | 3842 | C   | SER | 2192 | 58.136 | 36.064 | -4.378  | 1.00 | 12.64 | heav  |
| ATOM | 3843 | O   | SER | 2192 | 57.156 | 35.312 | -4.315  | 1.00 | 10.40 | heav  |
| ATOM | 3844 | N   | SER | 2193 | 59.100 | 36.124 | -3.472  | 1.00 | 17.32 | heav  |
| ATOM | 3846 | CA  | SER | 2193 | 58.987 | 35.446 | -2.166  | 1.00 | 17.32 | heav  |
| ATOM | 3847 | CB  | SER | 2193 | 60.194 | 34.661 | -1.777  | 1.00 | 17.59 | heav  |
| ATOM | 3848 | OG  | SER | 2193 | 61.316 | 35.478 | -1.456  | 1.00 | 17.59 | heav  |
| ATOM | 3850 | C   | SER | 2193 | 58.843 | 36.415 | -1.039  | 1.00 | 17.32 | heav  |
| ATOM | 3851 | O   | SER | 2193 | 59.452 | 37.472 | -1.218  | 1.00 | 17.59 | heav  |
| ATOM | 3852 | N   | VAL | 2194 | 58.099 | 36.152 | 0.038   | 1.00 | 10.93 | heav  |
| ATOM | 3854 | CA  | VAL | 2194 | 58.050 | 37.021 | 1.235   | 1.00 | 10.93 | heav  |
| ATOM | 3855 | CB  | VAL | 2194 | 56.646 | 37.701 | -1.432  | 1.00 | 9.52  | heav  |
| ATOM | 3856 | CG1 | VAL | 2194 | 55.590 | 36.779 | 1.958   | 1.00 | 9.52  | heav  |
| ATOM | 3857 | CG2 | VAL | 2194 | 56.816 | 38.823 | 2.416   | 1.00 | 9.52  | heav  |
| ATOM | 3858 | C   | VAL | 2194 | 58.368 | 36.234 | 2.502   | 1.00 | 10.93 | heav  |
| ATOM | 3859 | O   | VAL | 2194 | 57.882 | 35.103 | 2.660   | 1.00 | 9.52  | heav  |

| ATOM | 3860 | N | THR | 2195 | 59.178 | 36.678 | 3.438 | 1.00 | 10.95 | heav |
|------|------|-----|-----|------|--------|--------|-------|------|-------|------|
| ATOM | 3862 | CA | THR | 2195 | 59.233 | 35.858 | 4.641 | 1.00 | 10.95 | heav |
| ATOM | 3863 | CB | THR | 2195 | 60.726 | 35.327 | 4.925 | 1.00 | 32.72 | heav |
| ATOM | 3864 | OG1 | THR | 2195 | 60.500 | 34.105 | 5.604 | 1.00 | 32.72 | heav |
| ATOM | 3866 | CG2 | THR | 2195 | 61.639 | 36.073 | 5.882 | 1.00 | 32.72 | heav |
| ATOM | 3867 | C | THR | 2195 | 58.638 | 36.609 | 5.801 | 1.00 | 10.95 | heav |
| ATOM | 3868 | O | THR | 2195 | 58.933 | 37.702 | 6.210 | 1.00 | 32.72 | heav |
| ATOM | 3869 | N | VAL | 2196 | 57.559 | 36.024 | 6.157 | 1.00 | 8.78 | heav |
| ATOM | 3871 | CA | VAL | 2196 | 56.692 | 36.441 | 7.209 | 1.00 | 8.78 | heav |
| ATOM | 3872 | CB | VAL | 2196 | 55.436 | 36.146 | 6.502 | 1.00 | 2.00 | heav |
| ATOM | 3873 | CG1 | VAL | 2196 | 54.528 | 35.177 | 7.164 | 1.00 | 2.00 | heav |
| ATOM | 3874 | CG2 | VAL | 2196 | 54.862 | 37.468 | 6.323 | 1.00 | 2.00 | heav |
| ATOM | 3875 | C | VAL | 2196 | 56.990 | 35.732 | 8.541 | 1.00 | 8.78 | heav |
| ATOM | 3876 | O | VAL | 2196 | 57.432 | 34.584 | 8.586 | 1.00 | 2.00 | heav |
| ATOM | 3877 | N | PRO | 2197 | 56.824 | 36.386 | 9.684 | 1.00 | 2.00 | heav |
| ATOM | 3878 | CD | PRO | 2197 | 57.067 | 37.823 | 9.833 | 1.00 | 18.70 | heav |
| ATOM | 3879 | CA | PRO | 2197 | 56.692 | 35.773 | 11.010 | 1.00 | 2.00 | heav |
| ATOM | 3880 | CB | PRO | 2197 | 56.295 | 36.928 | 11.880 | 1.00 | 18.70 | heav |
| ATOM | 3881 | CG | PRO | 2197 | 57.101 | 38.121 | 11.357 | 1.00 | 18.70 | heav |
| ATOM | 3882 | C | PRO | 2197 | 55.729 | 34.629 | 11.116 | 1.00 | 2.00 | heav |
| ATOM | 3883 | O | PRO | 2197 | 54.677 | 34.784 | 10.548 | 1.00 | 18.70 | heav |
| ATOM | 3884 | N | SER | 2198 | 55.911 | 33.487 | 11.779 | 1.00 | 15.26 | heav |
| ATOM | 3886 | CA | SER | 2198 | 54.842 | 32.454 | 11.847 | 1.00 | 15.26 | heav |
| ATOM | 3887 | CB | SER | 2198 | 55.218 | 31.283 | 12.655 | 1.00 | 44.17 | heav |
| ATOM | 3888 | OG | SER | 2198 | 56.217 | 30.589 | 11.910 | 1.00 | 44.17 | heav |
| ATOM | 3890 | C | SER | 2198 | 53.443 | 32.754 | 12.365 | 1.00 | 15.26 | heav |
| ATOM | 3891 | O | SER | 2198 | 52.443 | 32.204 | 11.879 | 1.00 | 44.17 | heav |
| ATOM | 3892 | N | SER | 2199 | 53.277 | 33.637 | 13.354 | 1.00 | 34.48 | heav |
| ATOM | 3894 | CA | SER | 2199 | 51.906 | 34.052 | 13.732 | 1.00 | 34.48 | heav |
| ATOM | 3895 | CB | SER | 2199 | 51.893 | 34.918 | 14.996 | 1.00 | 27.79 | heav |
| ATOM | 3896 | OG | SER | 2199 | 52.891 | 35.937 | 14.931 | 1.00 | 27.79 | heav |
| ATOM | 3898 | C | SER | 2199 | 51.116 | 34.838 | 12.671 | 1.00 | 34.48 | heav |
| ATOM | 3899 | O | SER | 2199 | 49.893 | 34.666 | 12.614 | 1.00 | 27.79 | heav |
| ATOM | 3900 | N | PRO | 2200 | 51.618 | 35.666 | 11.739 | 1.00 | 28.19 | heav |
| ATOM | 3901 | CD | PRO | 2200 | 52.653 | 36.693 | 11.943 | 1.00 | 47.16 | heav |
| ATOM | 3902 | CA | PRO | 2200 | 50.840 | 36.062 | 10.556 | 1.00 | 28.19 | heav |
| ATOM | 3903 | CB | PRO | 2200 | 51.799 | 36.915 | 9.715 | 1.00 | 47.16 | heav |
| ATOM | 3904 | CG | PRO | 2200 | 52.524 | 37.721 | 10.793 | 1.00 | 47.16 | heav |
| ATOM | 3905 | C | PRO | 2200 | 50.248 | 34.916 | 9.743 | 1.00 | 28.19 | heav |
| ATOM | 3906 | O | PRO | 2200 | 49.282 | 35.222 | 9.021 | 1.00 | 47.16 | heav |
| ATOM | 3907 | N | ARG | 2201 | 50.660 | 33.619 | 9.764 | 1.00 | 27.46 | heav |
| ATOM | 3909 | CA | ARG | 2201 | 49.978 | 32.767 | 8.809 | 1.00 | 27.46 | heav |
| ATOM | 3910 | CB | ARG | 2201 | 50.754 | 32.786 | 7.490 | 1.00 | 16.95 | heav |
| ATOM | 3911 | CG | ARG | 2201 | 49.841 | 33.272 | 6.381 | 1.00 | 16.95 | heav |
| ATOM | 3912 | CD | ARG | 2201 | 49.958 | 32.518 | 5.061 | 1.00 | 16.95 | heav |
| ATOM | 3913 | NE | ARG | 2201 | 49.642 | 31.110 | 4.941 | 1.00 | 16.95 | heav |
| ATOM | 3915 | CZ | ARG | 2201 | 50.520 | 30.153 | 5.248 | 1.00 | 16.95 | heav |
| ATOM | 3916 | NH1 | ARG | 2201 | 51.723 | 30.401 | 5.705 | 1.00 | 16.95 | heav |
| ATOM | 3919 | NH2 | ARG | 2201 | 50.271 | 28.866 | 5.006 | 1.00 | 16.95 | heav |
| ATOM | 3922 | C | ARG | 2201 | 49.612 | 31.349 | 9.114 | 1.00 | 27.46 | heav |
| ATOM | 3923 | O | ARG | 2201 | 50.367 | 30.563 | 9.676 | 1.00 | 16.95 | heav |
| ATOM | 3924 | N | CPR | 2202 | 48.364 | 31.015 | 8.809 | 1.00 | 23.96 | heav |
| ATOM | 3925 | CD | CPR | 2202 | 47.939 | 29.625 | 8.655 | 1.00 | 42.90 | heav |
| ATOM | 3926 | CA | CPR | 2202 | 47.310 | 31.915 | 8.232 | 1.00 | 23.96 | heav |
| ATOM | 3927 | CB | CPR | 2202 | 46.386 | 31.046 | 7.359 | 1.00 | 42.90 | heav |
| ATOM | 3928 | CG | CPR | 2202 | 46.439 | 29.775 | 8.197 | 1.00 | 42.90 | heav |
| ATOM | 3929 | C | CPR | 2202 | 46.453 | 32.669 | 9.228 | 1.00 | 23.96 | heav |
| ATOM | 3930 | O | CPR | 2202 | 45.246 | 32.797 | 8.990 | 1.00 | 42.90 | heav |
| ATOM | 3931 | N | SER | 2203 | 46.969 | 33.094 | 10.374 | 1.00 | 22.44 | heav |
| ATOM | 3933 | CA | SER | 2203 | 46.086 | 33.827 | 11.287 | 1.00 | 22.44 | heav |
| ATOM | 3934 | CB | SER | 2203 | 46.762 | 34.325 | 12.520 | 1.00 | 39.71 | heav |
| ATOM | 3935 | OG | SER | 2203 | 47.393 | 33.146 | 13.036 | 1.00 | 39.71 | heav |
| ATOM | 3937 | C | SER | 2203 | 45.718 | 35.038 | 10.498 | 1.00 | 22.44 | heav |
| ATOM | 3938 | O | SER | 2203 | 44.555 | 35.355 | 10.264 | 1.00 | 39.71 | heav |
| ATOM | 3939 | N | GLU | 2204 | 46.789 | 35.575 | 9.939 | 1.00 | 25.67 | heav |
| ATOM | 3941 | CA | GLU | 2204 | 46.606 | 36.640 | 9.000 | 1.00 | 25.67 | heav |
| ATOM | 3942 | CB | GLU | 2204 | 47.705 | 37.725 | 9.208 | 1.00 | 52.43 | heav |

| ATOM | 3943 | CG | GLU | 2204 | 47.921 | 38.353 | 10.604 | 1.00 | 52.43 | heav |
|------|------|-----|-----|------|--------|--------|--------|------|-------|------|
| ATOM | 3944 | CD | GLU | 2204 | 48.261 | 39.869 | 10.623 | 1.00 | 52.43 | heav |
| ATOM | 3945 | OE1 | GLU | 2204 | 47.451 | 40.610 | 11.225 | 1.00 | 52.43 | heav |
| ATOM | 3946 | OE2 | GLU | 2204 | 49.300 | 40.319 | 10.065 | 1.00 | 52.43 | heav |
| ATOM | 3947 | C | GLU | 2204 | 46.578 | 36.129 | 7.525 | 1.00 | 25.67 | heav |
| ATOM | 3948 | O | GLU | 2204 | 46.341 | 34.950 | 7.168 | 1.00 | 52.43 | heav |
| ATOM | 3949 | N | THR | 2205 | 46.682 | 37.120 | 6.625 | 1.00 | 52.23 | heav |
| ATOM | 3951 | CA | THR | 2205 | 46.441 | 36.883 | 5.216 | 1.00 | 52.23 | heav |
| ATOM | 3952 | CB | THR | 2205 | 44.928 | 37.272 | 4.948 | 1.00 | 33.16 | heav |
| ATOM | 3953 | OG1 | THR | 2205 | 44.414 | 35.993 | 4.548 | 1.00 | 33.16 | heav |
| ATOM | 3955 | CG2 | THR | 2205 | 44.586 | 38.371 | 3.907 | 1.00 | 33.16 | heav |
| ATOM | 3956 | C | THR | 2205 | 47.455 | 37.710 | 4.459 | 1.00 | 52.23 | heav |
| ATOM | 3957 | O | THR | 2205 | 47.684 | 38.915 | 4.696 | 1.00 | 33.16 | heav |
| ATOM | 3958 | N | VAL | 2206 | 48.164 | 36.914 | 3.653 | 1.00 | 18.19 | heav |
| ATOM | 3960 | CA | VAL | 2206 | 49.229 | 37.407 | 2.800 | 1.00 | 18.19 | heav |
| ATOM | 3961 | CB | VAL | 2206 | 50.436 | 36.459 | 2.972 | 1.00 | 16.06 | heav |
| ATOM | 3962 | CG1 | VAL | 2206 | 51.553 | 36.808 | 2.000 | 1.00 | 16.06 | heav |
| ATOM | 3963 | CG2 | VAL | 2206 | 50.957 | 36.571 | 4.423 | 1.00 | 16.06 | heav |
| ATOM | 3964 | C | VAL | 2206 | 48.619 | 37.348 | 1.436 | 1.00 | 18.19 | heav |
| ATOM | 3965 | O | VAL | 2206 | 48.051 | 36.314 | 1.071 | 1.00 | 16.06 | heav |
| ATOM | 3966 | N | THR | 2207 | 48.589 | 38.447 | 0.706 | 1.00 | 14.59 | heav |
| ATOM | 3968 | CA | THR | 2207 | 48.076 | 38.403 | -0.667 | 1.00 | 14.59 | heav |
| ATOM | 3969 | CB | THR | 2207 | 46.734 | 39.170 | -0.811 | 1.00 | 23.23 | heav |
| ATOM | 3970 | OG1 | THR | 2207 | 45.762 | 38.304 | -0.205 | 1.00 | 23.23 | heav |
| ATOM | 3972 | CG2 | THR | 2207 | 46.202 | 39.362 | -2.234 | 1.00 | 23.23 | heav |
| ATOM | 3973 | C | THR | 2207 | 49.070 | 38.966 | -1.634 | 1.00 | 14.59 | heav |
| ATOM | 3974 | O | THR | 2207 | 49.777 | 39.955 | -1.443 | 1.00 | 23.23 | heav |
| ATOM | 3975 | N | CYS | 2208 | 49.173 | 38.132 | -2.632 | 1.00 | 18.37 | heav |
| ATOM | 3977 | CA | CYS | 2208 | 50.054 | 38.346 | -3.773 | 1.00 | 18.37 | heav |
| ATOM | 3978 | C | CYS | 2208 | 49.506 | 39.339 | -4.780 | 1.00 | 18.37 | heav |
| ATOM | 3979 | O | CYS | 2208 | 48.477 | 38.976 | -5.355 | 1.00 | 16.22 | heav |
| ATOM | 3980 | CB | CYS | 2208 | 50.222 | 37.045 | -4.455 | 1.00 | 16.22 | heav |
| ATOM | 3981 | SG | CYS | 2208 | 51.321 | 37.075 | -5.871 | 1.00 | 16.22 | heav |
| ATOM | 3982 | N | ASN | 2209 | 49.988 | 40.535 | -5.130 | 1.00 | 5.56 | heav |
| ATOM | 3984 | CA | ASN | 2209 | 49.222 | 41.340 | -6.085 | 1.00 | 5.56 | heav |
| ATOM | 3985 | CB | ASN | 2209 | 48.840 | 42.719 | -5.539 | 1.00 | 22.20 | heav |
| ATOM | 3986 | CG | ASN | 2209 | 48.543 | 42.880 | -4.026 | 1.00 | 22.20 | heav |
| ATOM | 3987 | OD1 | ASN | 2209 | 49.365 | 43.400 | -3.285 | 1.00 | 22.20 | heav |
| ATOM | 3988 | ND2 | ASN | 2209 | 47.468 | 42.539 | -3.333 | 1.00 | 22.20 | heav |
| ATOM | 3991 | C | ASN | 2209 | 49.965 | 41.569 | -7.373 | 1.00 | 5.56 | heav |
| ATOM | 3992 | O | ASN | 2209 | 50.911 | 42.317 | -7.489 | 1.00 | 22.20 | heav |
| ATOM | 3993 | N | VAL | 2210 | 49.532 | 40.900 | -8.407 | 1.00 | 20.32 | heav |
| ATOM | 3995 | CA | VAL | 2210 | 50.207 | 40.930 | -9.698 | 1.00 | 20.32 | heav |
| ATOM | 3996 | CB | VAL | 2210 | 50.177 | 39.544 | -10.348 | 1.00 | 7.94 | heav |
| ATOM | 3997 | CG1 | VAL | 2210 | 51.025 | 39.525 | -11.602 | 1.00 | 7.94 | heav |
| ATOM | 3998 | CG2 | VAL | 2210 | 50.590 | 38.536 | -9.329 | 1.00 | 7.94 | heav |
| ATOM | 3999 | C | VAL | 2210 | 49.535 | 41.900 | -10.629 | 1.00 | 20.32 | heav |
| ATOM | 4000 | O | VAL | 2210 | 48.335 | 41.832 | -10.775 | 1.00 | 7.94 | heav |
| ATOM | 4001 | N | ALA | 2211 | 50.247 | 42.701 | -11.365 | 1.00 | 2.00 | heav |
| ATOM | 4003 | CA | ALA | 2211 | 49.657 | 43.641 | -12.258 | 1.00 | 2.00 | heav |
| ATOM | 4004 | CB | ALA | 2211 | 49.645 | 44.986 | -11.634 | 1.00 | 11.02 | heav |
| ATOM | 4005 | C | ALA | 2211 | 50.394 | 43.741 | -13.565 | 1.00 | 2.00 | heav |
| ATOM | 4006 | O | ALA | 2211 | 51.482 | 44.262 | -13.702 | 1.00 | 11.02 | heav |
| ATOM | 4007 | N | HIS | 2212 | 49.855 | 43.203 | -14.623 | 1.00 | 21.66 | heav |
| ATOM | 4009 | CA | HIS | 2212 | 50.482 | 43.270 | -15.921 | 1.00 | 21.66 | heav |
| ATOM | 4010 | CB | HIS | 2212 | 50.316 | 41.956 | -16.694 | 1.00 | 13.89 | heav |
| ATOM | 4011 | CG | HIS | 2212 | 50.979 | 41.814 | -18.077 | 1.00 | 13.89 | heav |
| ATOM | 4012 | CD2 | HIS | 2212 | 52.206 | 42.313 | -18.398 | 1.00 | 13.89 | heav |
| ATOM | 4013 | ND1 | HIS | 2212 | 50.547 | 41.160 | -19.142 | 1.00 | 13.89 | heav |
| ATOM | 4015 | CE1 | HIS | 2212 | 51.426 | 41.218 | -20.071 | 1.00 | 13.89 | heav |
| ATOM | 4016 | NE2 | HIS | 2212 | 52.422 | 41.924 | -19.604 | 1.00 | 13.89 | heav |
| ATOM | 4018 | C | HIS | 2212 | 49.809 | 44.371 | -16.720 | 1.00 | 21.66 | heav |
| ATOM | 4019 | O | HIS | 2212 | 48.874 | 44.111 | -17.516 | 1.00 | 13.89 | heav |
| ATOM | 4020 | N | PRO | 2213 | 50.311 | 45.579 | -16.680 | 1.00 | 7.95 | heav |
| ATOM | 4021 | CD | PRO | 2213 | 51.693 | 45.832 | -16.381 | 1.00 | 16.11 | heav |
| ATOM | 4022 | CA | PRO | 2213 | 49.703 | 46.680 | -17.389 | 1.00 | 7.95 | heav |
| ATOM | 4023 | CB | PRO | 2213 | 50.662 | 47.761 | -17.017 | 1.00 | 16.11 | heav |

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| ATOM | 4024 | CG | PRO | 2213 | 51.986 | 47.097 | -17.170 | 1.00 | 16.11 | heav |
|------|------|-----|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 4025 | C | PRO | 2213 | 49.473 | 46.415 | -18.901 | 1.00 | 7.95 | heav |
| ATOM | 4026 | O | PRO | 2213 | 48.383 | 46.603 | -19.412 | 1.00 | 16.11 | heav |
| ATOM | 4027 | N | ALA | 2214 | 50.364 | 45.834 | -19.703 | 1.00 | 10.15 | heav |
| ATOM | 4029 | CA | ALA | 2214 | 50.112 | 45.607 | -21.132 | 1.00 | 10.15 | heav |
| ATOM | 4030 | CB | ALA | 2214 | 51.336 | 45.039 | -21.794 | 1.00 | 26.36 | heav |
| ATOM | 4031 | C | ALA | 2214 | 48.983 | 44.677 | -21.516 | 1.00 | 10.15 | heav |
| ATOM | 4032 | O | ALA | 2214 | 48.647 | 44.476 | -22.688 | 1.00 | 26.36 | heav |
| ATOM | 4033 | N | SER | 2215 | 48.493 | 43.921 | -20.538 | 1.00 | 12.93 | heav |
| ATOM | 4035 | CA | SER | 2215 | 47.324 | 43.119 | -20.838 | 1.00 | 12.93 | heav |
| ATOM | 4036 | CB | SER | 2215 | 47.572 | 41.675 | -20.698 | 1.00 | 17.34 | heav |
| ATOM | 4037 | OG | SER | 2215 | 48.049 | 41.477 | -19.364 | 1.00 | 17.34 | heav |
| ATOM | 4039 | C | SER | 2215 | 46.253 | 43.462 | -19.868 | 1.00 | 12.93 | heav |
| ATOM | 4040 | O | SER | 2215 | 45.328 | 42.703 | -19.742 | 1.00 | 17.34 | heav |
| ATOM | 4041 | N | SER | 2216 | 46.342 | 44.534 | -19.115 | 1.00 | 2.00 | heav |
| ATOM | 4043 | CA | SER | 2216 | 45.233 | 44.910 | -18.252 | 1.00 | 2.00 | heav |
| ATOM | 4044 | CB | SER | 2216 | 44.085 | 45.397 | -19.127 | 1.00 | 19.02 | heav |
| ATOM | 4045 | OG | SER | 2216 | 44.535 | 46.671 | -19.612 | 1.00 | 19.02 | heav |
| ATOM | 4047 | C | SER | 2216 | 44.695 | 43.923 | -17.244 | 1.00 | 2.00 | heav |
| ATOM | 4048 | O | SER | 2216 | 43.582 | 43.960 | -16.726 | 1.00 | 19.02 | heav |
| ATOM | 4049 | N | THR | 2217 | 45.648 | 43.127 | -16.825 | 1.00 | 9.12 | heav |
| ATOM | 4051 | CA | THR | 2217 | 45.386 | 42.146 | -15.793 | 1.00 | 9.12 | heav |
| ATOM | 4052 | CB | THR | 2217 | 46.115 | 40.823 | -16.043 | 1.00 | 18.16 | heav |
| ATOM | 4053 | OG1 | THR | 2217 | 45.994 | 40.585 | -17.423 | 1.00 | 18.16 | heav |
| ATOM | 4055 | CG2 | THR | 2217 | 45.444 | 39.588 | -15.489 | 1.00 | 18.16 | heav |
| ATOM | 4056 | C | THR | 2217 | 45.817 | 42.628 | -14.436 | 1.00 | 9.12 | heav |
| ATOM | 4057 | O | THR | 2217 | 46.836 | 43.281 | -14.303 | 1.00 | 18.16 | heav |
| ATOM | 4058 | N | LYS | 2218 | 44.977 | 42.465 | -13.449 | 1.00 | 9.13 | heav |
| ATOM | 4060 | CA | LYS | 2218 | 45.402 | 42.600 | -12.073 | 1.00 | 9.13 | heav |
| ATOM | 4061 | CB | LYS | 2218 | 44.833 | 43.759 | -11.306 | 1.00 | 37.47 | heav |
| ATOM | 4062 | CG | LYS | 2218 | 45.509 | 45.035 | -11.787 | 1.00 | 37.47 | heav |
| ATOM | 4063 | CD | LYS | 2218 | 45.256 | 46.342 | -10.970 | 1.00 | 37.47 | heav |
| ATOM | 4064 | CE | LYS | 2218 | 45.567 | 47.564 | -11.870 | 1.00 | 37.47 | heav |
| ATOM | 4065 | NZ | LYS | 2218 | 45.621 | 48.828 | -11.125 | 1.00 | 37.47 | heav |
| ATOM | 4069 | C | LYS | 2218 | 44.837 | 41.374 | -11.392 | 1.00 | 9.13 | heav |
| ATOM | 4070 | O | LYS | 2218 | 43.612 | 41.216 | -11.329 | 1.00 | 37.47 | heav |
| ATOM | 4071 | N | VAL | 2219 | 45.669 | 40.416 | -10.982 | 1.00 | 21.43 | heav |
| ATOM | 4073 | CA | VAL | 2219 | 45.156 | 39.227 | -10.311 | 1.00 | 21.43 | heav |
| ATOM | 4074 | CB | VAL | 2219 | 45.777 | 37.911 | -10.880 | 1.00 | 21.93 | heav |
| ATOM | 4075 | CG1 | VAL | 2219 | 45.070 | 36.711 | -10.209 | 1.00 | 21.93 | heav |
| ATOM | 4076 | CG2 | VAL | 2219 | 45.660 | 37.832 | -12.420 | 1.00 | 21.93 | heav |
| ATOM | 4077 | C | VAL | 2219 | 45.539 | 39.328 | -8.837 | 1.00 | 21.43 | heav |
| ATOM | 4078 | O | VAL | 2219 | 46.617 | 39.849 | -8.541 | 1.00 | 21.93 | heav |
| ATOM | 4079 | N | ASP | 2220 | 44.672 | 38.942 | -7.889 | 1.00 | 31.39 | heav |
| ATOM | 4081 | CA | ASP | 2220 | 45.056 | 38.819 | -6.476 | 1.00 | 31.39 | heav |
| ATOM | 4082 | CB | ASP | 2220 | 44.091 | 39.539 | -5.533 | 1.00 | 27.27 | heav |
| ATOM | 4083 | CG | ASP | 2220 | 44.349 | 41.041 | -5.447 | 1.00 | 27.27 | heav |
| ATOM | 4084 | OD1 | ASP | 2220 | 45.483 | 41.459 | -5.228 | 1.00 | 27.27 | heav |
| ATOM | 4085 | OD2 | ASP | 2220 | 43.400 | 41.815 | -5.593 | 1.00 | 27.27 | heav |
| ATOM | 4086 | C | ASP | 2220 | 45.011 | 37.334 | -6.164 | 1.00 | 31.39 | heav |
| ATOM | 4087 | O | ASP | 2220 | 44.059 | 36.661 | -6.583 | 1.00 | 27.27 | heav |
| ATOM | 4088 | N | LYS | 2221 | 46.064 | 36.781 | -5.569 | 1.00 | 17.26 | heav |
| ATOM | 4090 | CA | LYS | 2221 | 46.068 | 35.414 | -5.130 | 1.00 | 17.26 | heav |
| ATOM | 4091 | CB | LYS | 2221 | 47.056 | 34.727 | -5.979 | 1.00 | 21.93 | heav |
| ATOM | 4092 | CG | LYS | 2221 | 46.758 | 33.259 | -5.935 | 1.00 | 21.93 | heav |
| ATOM | 4093 | CD | LYS | 2221 | 45.429 | 32.882 | -6.596 | 1.00 | 21.93 | heav |
| ATOM | 4094 | CE | LYS | 2221 | 45.597 | 32.467 | -8.063 | 1.00 | 21.93 | heav |
| ATOM | 4095 | NZ | LYS | 2221 | 46.241 | 33.528 | -8.844 | 1.00 | 21.93 | heav |
| ATOM | 4099 | C | LYS | 2221 | 46.391 | 35.358 | -3.616 | 1.00 | 17.26 | heav |
| ATOM | 4100 | O | LYS | 2221 | 47.362 | 35.923 | -3.049 | 1.00 | 21.93 | heav |
| ATOM | 4101 | N | LYS | 2222 | 45.475 | 34.715 | -2.888 | 1.00 | 6.98 | heav |
| ATOM | 4103 | CA | LYS | 2222 | 45.613 | 34.634 | -1.442 | 1.00 | 6.98 | heav |
| ATOM | 4104 | CB | LYS | 2222 | 44.253 | 34.637 | -0.884 | 1.00 | 33.84 | heav |
| ATOM | 4105 | CG | LYS | 2222 | 43.982 | 35.576 | 0.279 | 1.00 | 33.84 | heav |
| ATOM | 4106 | CD | LYS | 2222 | 42.440 | 35.734 | 0.414 | 1.00 | 33.84 | heav |
| ATOM | 4107 | CE | LYS | 2222 | 41.707 | 36.357 | -0.841 | 1.00 | 33.84 | heav |
| ATOM | 4108 | NZ | LYS | 2222 | 42.271 | 37.645 | -1.340 | 1.00 | 33.84 | heav |

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| ATOM | 4112 | C | LYS | 2222 | 46.371 | 33.364 | -1.081 | 1.00 | 6.98 | heav |
|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 4113 | O | LYS | 2222 | 46.117 | 32.257 | -1.597 | 1.00 | 33.84 | heav |
| ATOM | 4114 | N | ILE | 2223 | 47.394 | 33.541 | -0.234 | 1.00 | 34.84 | heav |
| ATOM | 4116 | CA | ILE | 2223 | 48.312 | 32.427 | 0.045 | 1.00 | 34.84 | heav |
| ATOM | 4117 | CB | ILE | 2223 | 49.747 | 32.998 | 0.158 | 1.00 | 14.26 | heav |
| ATOM | 4118 | CG2 | ILE | 2223 | 50.673 | 31.810 | 0.382 | 1.00 | 14.26 | heav |
| ATOM | 4119 | CG1 | ILE | 2223 | 50.173 | 33.815 | -1.078 | 1.00 | 14.26 | heav |
| ATOM | 4120 | CD1 | ILE | 2223 | 50.767 | 33.036 | -2.255 | 1.00 | 14.26 | heav |
| ATOM | 4121 | C | ILE | 2223 | 47.859 | 31.675 | 1.317 | 1.00 | 34.84 | heav |
| ATOM | 4122 | O | ILE | 2223 | 48.041 | 32.006 | 2.503 | 1.00 | 14.26 | heav |
| ATOM | 4123 | N | VAL | 2224 | 47.083 | 30.650 | 0.938 | 1.00 | 24.58 | heav |
| ATOM | 4125 | CA | VAL | 2224 | 46.434 | 29.703 | 1.857 | 1.00 | 24.58 | heav |
| ATOM | 4126 | CB | VAL | 2224 | 44.944 | 29.404 | 1.423 | 1.00 | 22.99 | heav |
| ATOM | 4127 | CG1 | VAL | 2224 | 44.037 | 30.518 | 1.907 | 1.00 | 22.99 | heav |
| ATOM | 4128 | CG2 | VAL | 2224 | 44.835 | 29.313 | -0.094 | 1.00 | 22.99 | heav |
| ATOM | 4129 | C | VAL | 2224 | 47.195 | 28.389 | 1.916 | 1.00 | 24.58 | heav |
| ATOM | 4130 | O | VAL | 2224 | 47.758 | 28.039 | 0.881 | 1.00 | 22.99 | heav |
| ATOM | 4131 | N | PRO | 2225 | 47.236 | 27.630 | 3.043 | 1.00 | 29.11 | heav |
| ATOM | 4132 | CD | PRO | 2225 | 46.635 | 28.025 | 4.339 | 1.00 | 19.53 | heav |
| ATOM | 4133 | CA | PRO | 2225 | 47.980 | 26.344 | 3.171 | 1.00 | 29.11 | heav |
| ATOM | 4134 | CB | PRO | 2225 | 48.254 | 26.207 | 4.658 | 1.00 | 19.53 | heav |
| ATOM | 4135 | CG | PRO | 2225 | 47.016 | 26.872 | 5.262 | 1.00 | 19.53 | heav |
| ATOM | 4136 | C | PRO | 2225 | 47.305 | 25.122 | 2.592 | 1.00 | 29.11 | heav |
| ATOM | 4137 | O | PRO | 2225 | 46.092 | 25.148 | 2.320 | 1.00 | 19.53 | heav |
| ATOM | 4138 | N | ARG | 2226 | 48.125 | 24.071 | 2.449 | 1.00 | 40.93 | heav |
| ATOM | 4140 | CA | ARG | 2226 | 47.699 | 22.867 | 1.672 | 1.00 | 40.93 | heav |
| ATOM | 4141 | CB | ARG | 2226 | 49.013 | 22.141 | 1.268 | 1.00 | 35.71 | heav |
| ATOM | 4142 | CG | ARG | 2226 | 49.923 | 23.067 | 0.474 | 1.00 | 35.71 | heav |
| ATOM | 4143 | CD | ARG | 2226 | 50.885 | 22.329 | -0.415 | 1.00 | 35.71 | heav |
| ATOM | 4144 | NE | ARG | 2226 | 51.741 | 23.328 | -1.067 | 1.00 | 35.71 | heav |
| ATOM | 4146 | CZ | ARG | 2226 | 52.368 | 23.106 | -2.260 | 1.00 | 35.71 | heav |
| ATOM | 4147 | NH1 | ARG | 2226 | 52.156 | 21.892 | -2.853 | 1.00 | 35.71 | heav |
| ATOM | 4150 | NH2 | ARG | 2226 | 53.248 | 24.033 | -2.777 | 1.00 | 35.71 | heav |
| ATOM | 4153 | C | ARG | 2226 | 46.641 | 21.800 | 2.110 | 1.00 | 40.93 | heav |
| ATOM | 4154 | OT1 | ARG | 2226 | 46.813 | 21.183 | 3.170 | 1.00 | 35.71 | heav |
| ATOM | 4155 | OT2 | ARG | 2226 | 45.651 | 21.563 | 1.378 | 1.00 | 35.71 | heav |
| ATOM | 4156 | C | GLY | 3002 | 77.488 | 79.557 | -22.677 | 1.00 | 34.29 | pept |
| ATOM | 4157 | O | GLY | 3002 | 77.644 | 78.753 | -23.600 | 1.00 | 32.36 | pept |
| ATOM | 4160 | N | GLY | 3002 | 75.875 | 80.408 | -24.322 | 1.00 | 34.29 | pept |
| ATOM | 4162 | CA | GLY | 3002 | 76.405 | 80.614 | -22.961 | 1.00 | 34.29 | pept |
| ATOM | 4163 | N | SER | 3003 | 78.204 | 79.424 | -21.538 | 1.00 | 35.27 | pept |
| ATOM | 4165 | CA | SER | 3003 | 79.315 | 78.457 | -21.343 | 1.00 | 35.27 | pept |
| ATOM | 4166 | CB | SER | 3003 | 80.037 | 78.672 | -19.959 | 1.00 | 33.05 | pept |
| ATOM | 4167 | OG | SER | 3003 | 80.872 | 79.857 | -19.880 | 1.00 | 33.05 | pept |
| ATOM | 4169 | C | SER | 3003 | 78.987 | 76.971 | -21.430 | 1.00 | 35.27 | pept |
| ATOM | 4170 | O | SER | 3003 | 78.561 | 76.229 | -20.504 | 1.00 | 33.05 | pept |
| ATOM | 4171 | N | ILE | 3004 | 79.144 | 76.608 | -22.704 | 1.00 | 27.48 | pept |
| ATOM | 4173 | CA | ILE | 3004 | 79.027 | 75.202 | -23.093 | 1.00 | 27.48 | pept |
| ATOM | 4174 | CB | ILE | 3004 | 77.863 | 74.812 | -24.017 | 1.00 | 15.46 | pept |
| ATOM | 4175 | CG2 | ILE | 3004 | 76.927 | 73.884 | -23.267 | 1.00 | 15.46 | pept |
| ATOM | 4176 | CG1 | ILE | 3004 | 77.203 | 76.058 | -24.581 | 1.00 | 15.46 | pept |
| ATOM | 4177 | CD1 | ILE | 3004 | 76.078 | 75.504 | -25.261 | 1.00 | 15.46 | pept |
| ATOM | 4178 | C | ILE | 3004 | 80.231 | 74.743 | -23.900 | 1.00 | 27.48 | pept |
| ATOM | 4179 | O | ILE | 3004 | 81.051 | 75.555 | -24.287 | 1.00 | 15.46 | pept |
| ATOM | 4180 | N | GLY | 3005 | 80.391 | 73.432 | -24.064 | 1.00 | 24.56 | pept |
| ATOM | 4182 | CA | GLY | 3005 | 81.551 | 72.887 | -24.727 | 1.00 | 24.56 | pept |
| ATOM | 4183 | C | GLY | 3005 | 81.696 | 73.313 | -26.175 | 1.00 | 24.56 | pept |
| ATOM | 4184 | O | GLY | 3005 | 80.711 | 73.499 | -26.894 | 1.00 | 9.31 | pept |
| ATOM | 4185 | N | PRO | 3006 | 82.914 | 73.418 | -26.726 | 1.00 | 11.21 | pept |
| ATOM | 4186 | CD | PRO | 3006 | 84.103 | 73.004 | -26.043 | 1.00 | 14.67 | pept |
| ATOM | 4187 | CA | PRO | 3006 | 83.116 | 73.723 | -28.154 | 1.00 | 11.21 | pept |
| ATOM | 4188 | CB | PRO | 3006 | 84.546 | 73.567 | -28.411 | 1.00 | 14.67 | pept |
| ATOM | 4189 | CG | PRO | 3006 | 85.087 | 72.899 | -27.174 | 1.00 | 14.67 | pept |
| ATOM | 4190 | C | PRO | 3006 | 82.356 | 72.916 | -29.179 | 1.00 | 11.21 | pept |
| ATOM | 4191 | O | PRO | 3006 | 82.176 | 73.408 | -30.274 | 1.00 | 14.67 | pept |
| ATOM | 4192 | N | GLY | 3007 | 81.942 | 71.687 | -28.903 | 1.00 | 2.00 | pept |
| ATOM | 4194 | CA | GLY | 3007 | 81.302 | 70.847 | -29.886 | 1.00 | 2.00 | pept |

| ATOM | 4195 | C | GLY | 3007 | 79.810 | 70.783 | -29.794 | 1.00 | 2.00 | pept |
|------|------|------|-----|------|--------|--------|---------|------|-------|------|
| ATOM | 4196 | O | GLY | 3007 | 79.146 | 69.972 | -30.427 | 1.00 | 18.99 | pept |
| ATOM | 4197 | N | ARG | 3008 | 79.194 | 71.548 | -28.930 | 1.00 | 5.28 | pept |
| ATOM | 4199 | CA | ARG | 3008 | 77.756 | 71.541 | -28.888 | 1.00 | 5.28 | pept |
| ATOM | 4200 | CB | ARG | 3008 | 77.375 | 72.216 | -27.607 | 1.00 | 13.55 | pept |
| ATOM | 4201 | CG | ARG | 3008 | 77.839 | 71.479 | -26.374 | 1.00 | 13.55 | pept |
| ATOM | 4202 | CD | ARG | 3008 | 77.025 | 70.232 | -26.454 | 1.00 | 13.55 | pept |
| ATOM | 4203 | NE | ARG | 3008 | 76.460 | 69.883 | -25.169 | 1.00 | 13.55 | pept |
| ATOM | 4205 | CZ | ARG | 3008 | 75.168 | 69.725 | -24.933 | 1.00 | 13.55 | pept |
| ATOM | 4206 | NH1 | ARG | 3008 | 74.181 | 69.861 | -25.823 | 1.00 | 13.55 | pept |
| ATOM | 4209 | NH2 | ARG | 3008 | 74.840 | 69.545 | -23.687 | 1.00 | 13.55 | pept |
| ATOM | 4212 | C | ARG | 3008 | 77.193 | 72.248 | -30.122 | 1.00 | 5.28 | pept |
| ATOM | 4213 | O | ARG | 3008 | 77.761 | 73.211 | -30.612 | 1.00 | 13.55 | pept |
| ATOM | 4214 | N | ALA | 3009 | 76.102 | 71.875 | -30.734 | 1.00 | 2.00 | pept |
| ATOM | 4216 | CA | ALA | 3009 | 75.613 | 72.672 | -31.835 | 1.00 | 2.00 | pept |
| ATOM | 4217 | CB | ALA | 3009 | 74.727 | 71.860 | -32.688 | 1.00 | 12.33 | pept |
| ATOM | 4218 | C | ALA | 3009 | 74.858 | 73.924 | -31.458 | 1.00 | 2.00 | pept |
| ATOM | 4219 | O | ALA | 3009 | 74.684 | 74.784 | -32.304 | 1.00 | 12.33 | pept |
| ATOM | 4220 | N | PHE | 3010 | 74.384 | 74.077 | -30.227 | 1.00 | 9.04 | pept |
| ATOM | 4222 | CA | PHE | 3010 | 73.610 | 75.219 | -29.757 | 1.00 | 9.04 | pept |
| ATOM | 4223 | CB | PHE | 3010 | 72.198 | 74.820 | -29.486 | 1.00 | 10.58 | pept |
| ATOM | 4224 | CG | PHE | 3010 | 71.473 | 74.378 | -30.743 | 1.00 | 10.58 | pept |
| ATOM | 4225 | CD1 | PHE | 3010 | 71.534 | 73.064 | -31.133 | 1.00 | 10.58 | pept |
| ATOM | 4226 | CD2 | PHE | 3010 | 70.800 | 75.279 | -31.534 | 1.00 | 10.58 | pept |
| ATOM | 4227 | CE1 | PHE | 3010 | 70.931 | 72.690 | -32.319 | 1.00 | 10.58 | pept |
| ATOM | 4228 | CE2 | PHE | 3010 | 70.196 | 74.897 | -32.716 | 1.00 | 10.58 | pept |
| ATOM | 4229 | CZ | PHE | 3010 | 70.260 | 73.596 | -33.121 | 1.00 | 10.58 | pept |
| ATOM | 4230 | C | PHE | 3010 | 74.168 | 75.734 | -28.405 | 1.00 | 9.04 | pept |
| ATOM | 4231 | O | PHE | 3010 | 74.867 | 74.920 | -27.811 | 1.00 | 10.58 | pept |
| ATOM | 4232 | N | GLY | 3011 | 73.771 | 76.956 | -27.902 | 1.00 | 19.04 | pept |
| ATOM | 4234 | CA | GLY | 3011 | 74.163 | 77.459 | -26.583 | 1.00 | 19.04 | pept |
| ATOM | 4235 | C | GLY | 3011 | 73.756 | 78.788 | -26.078 | 1.00 | 19.04 | pept |
| ATOM | 4236 | O | GLY | 3011 | 73.690 | 79.696 | -26.839 | 1.00 | 56.42 | pept |
| ATOM | 4237 | N | GLY | 3012 | 73.579 | 78.992 | -24.748 | 1.00 | 90.50 | pept |
| ATOM | 4239 | CA | GLY | 3012 | 72.999 | 80.336 | -24.227 | 1.00 | 90.50 | pept |
| ATOM | 4240 | C | GLY | 3012 | 71.444 | 80.434 | -23.922 | 1.00 | 90.50 | pept |
| ATOM | 4241 | OT1 | GLY | 3012 | 70.927 | 81.495 | -23.452 | 1.00 | 95.89 | pept |
| ATOM | 4242 | OT2 | GLY | 3012 | 70.734 | 79.421 | -24.163 | 1.00 | 95.89 | pept |

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## APPENDIX B

| ATOM | 1  | CB  | ASP | 1 | 59.533 | 63.386 | 8.455  | 1.00 | 67.72 | lite | 0 |
|------|----|-----|-----|---|--------|--------|--------|------|-------|------|---|
| ATOM | 2  | CG  | ASP | 1 | 60.616 | 62.860 | 9.413  | 1.00 | 67.72 | lite | 0 |
| ATOM | 3  | OD1 | ASP | 1 | 60.800 | 63.425 | 10.510 | 1.00 | 67.72 | lite | 0 |
| ATOM | 4  | OD2 | ASP | 1 | 61.134 | 61.777 | 9.124  | 1.00 | 67.72 | lite | 0 |
| ATOM | 5  | C   | ASP | 1 | 58.116 | 62.348 | 10.173 | 1.00 | 30.93 | lite | 0 |
| ATOM | 6  | O   | ASP | 1 | 58.695 | 61.468 | 10.815 | 1.00 | 67.72 | lite | 0 |
| ATOM | 7  | N   | ASP | 1 | 57.108 | 62.946 | 7.800  | 1.00 | 30.93 | lite | 0 |
| ATOM | 8  | CA  | ASP | 1 | 58.257 | 62.492 | 8.635  | 1.00 | 30.93 | lite | 0 |
| ATOM | 9  | N   | ILE | 2 | 57.662 | 63.444 | 10.728 | 1.00 | 2.00  | lite | 0 |
| ATOM | 10 | CA  | ILE | 2 | 57.231 | 63.520 | 12.082 | 1.00 | 2.00  | lite | 0 |
| ATOM | 11 | CB  | ILE | 2 | 56.251 | 64.597 | 12.060 | 1.00 | 2.00  | lite | 0 |
| ATOM | 12 | CG2 | ILE | 2 | 55.534 | 64.618 | 13.376 | 1.00 | 2.00  | lite | 0 |
| ATOM | 13 | CG1 | ILE | 2 | 56.953 | 65.875 | 11.796 | 1.00 | 2.00  | lite | 0 |
| ATOM | 14 | CD1 | ILE | 2 | 56.107 | 66.900 | 11.052 | 1.00 | 2.00  | lite | 0 |
| ATOM | 15 | C   | ILE | 2 | 56.648 | 62.222 | 12.621 | 1.00 | 2.00  | lite | 0 |
| ATOM | 16 | O   | ILE | 2 | 55.765 | 61.562 | 12.049 | 1.00 | 2.00  | lite | 0 |
| ATOM | 17 | N   | VAL | 3 | 57.257 | 61.905 | 13.718 | 1.00 | 2.00  | lite | 0 |
| ATOM | 18 | CA  | VAL | 3 | 56.829 | 60.751 | 14.396 | 1.00 | 2.00  | lite | 0 |
| ATOM | 19 | CB  | VAL | 3 | 58.109 | 60.229 | 14.896 | 1.00 | 10.13 | lite | 0 |
| ATOM | 20 | CG1 | VAL | 3 | 57.900 | 59.251 | 16.014 | 1.00 | 10.13 | lite | 0 |
| ATOM | 21 | CG2 | VAL | 3 | 58.791 | 59.567 | 13.715 | 1.00 | 10.13 | lite | 0 |
| ATOM | 22 | C   | VAL | 3 | 55.790 | 61.182 | 15.412 | 1.00 | 2.00  | lite | 0 |
| ATOM | 23 | O   | VAL | 3 | 55.976 | 62.136 | 16.173 | 1.00 | 10.13 | lite | 0 |
| ATOM | 24 | N   | MET | 4 | 54.684 | 60.469 | 15.383 | 1.00 | 2.00  | lite | 0 |
| ATOM | 25 | CA  | MET | 4 | 53.569 | 60.781 | 16.223 | 1.00 | 2.00  | lite | 0 |
| ATOM | 26 | CB  | MET | 4 | 52.309 | 60.788 | 15.392 | 1.00 | 13.18 | lite | 0 |
| ATOM | 27 | CG  | MET | 4 | 52.362 | 61.758 | 14.225 | 1.00 | 13.18 | lite | 0 |
| ATOM | 28 | SD  | MET | 4 | 52.329 | 63.496 | 14.638 | 1.00 | 13.18 | lite | 0 |
| ATOM | 29 | CE  | MET | 4 | 50.738 | 63.544 | 15.332 | 1.00 | 13.18 | lite | 0 |
| ATOM | 30 | C   | MET | 4 | 53.494 | 59.735 | 17.306 | 1.00 | 2.00  | lite | 0 |
| ATOM | 31 | O   | MET | 4 | 53.365 | 58.519 | 17.137 | 1.00 | 13.18 | lite | 0 |
| ATOM | 32 | N   | THR | 5 | 53.606 | 60.286 | 18.482 | 1.00 | 2.00  | lite | 0 |
| ATOM | 33 | CA  | THR | 5 | 53.606 | 59.519 | 19.689 | 1.00 | 2.00  | lite | 0 |
| ATOM | 34 | CB  | THR | 5 | 54.843 | 59.921 | 20.467 | 1.00 | 30.34 | lite | 0 |
| ATOM | 35 | OG1 | THR | 5 | 55.930 | 60.150 | 19.571 | 1.00 | 30.34 | lite | 0 |
| ATOM | 36 | CG2 | THR | 5 | 55.230 | 58.800 | 21.398 | 1.00 | 30.34 | lite | 0 |
| ATOM | 37 | C   | THR | 5 | 52.358 | 59.670 | 20.543 | 1.00 | 2.00  | lite | 0 |
| ATOM | 38 | O   | THR | 5 | 52.075 | 60.708 | 21.152 | 1.00 | 30.34 | lite | 0 |
| ATOM | 39 | N   | GLN | 6 | 51.561 | 58.602 | 20.540 | 1.00 | 13.20 | lite | 0 |
| ATOM | 40 | CA  | GLN | 6 | 50.346 | 58.562 | 21.329 | 1.00 | 13.20 | lite | 0 |
| ATOM | 41 | CB  | GLN | 6 | 49.271 | 57.759 | 20.677 | 1.00 | 13.97 | lite | 0 |
| ATOM | 42 | CG  | GLN | 6 | 48.680 | 58.410 | 19.457 | 1.00 | 13.97 | lite | 0 |
| ATOM | 43 | CD  | GLN | 6 | 47.565 | 57.552 | 18.904 | 1.00 | 13.97 | lite | 0 |
| ATOM | 44 | OE1 | GLN | 6 | 47.281 | 57.574 | 17.713 | 1.00 | 13.97 | lite | 0 |
| ATOM | 45 | NE2 | GLN | 6 | 46.870 | 56.724 | 19.652 | 1.00 | 13.97 | lite | 0 |
| ATOM | 46 | C   | GLN | 6 | 50.674 | 57.899 | 22.619 | 1.00 | 13.20 | lite | 0 |
| ATOM | 47 | O   | GLN | 6 | 51.567 | 57.060 | 22.666 | 1.00 | 13.97 | lite | 0 |
| ATOM | 48 | N   | SER | 7 | 49.924 | 58.263 | 23.629 | 1.00 | 2.00  | lite | 0 |
| ATOM | 49 | CA  | SER | 7 | 50.081 | 57.746 | 24.947 | 1.00 | 2.00  | lite | 0 |
| ATOM | 50 | CB  | SER | 7 | 51.223 | 58.472 | 25.523 | 1.00 | 14.14 | lite | 0 |
| ATOM | 51 | OG  | SER | 7 | 51.012 | 58.722 | 26.891 | 1.00 | 14.14 | lite | 0 |
| ATOM | 52 | C   | SER | 7 | 48.777 | 58.010 | 25.672 | 1.00 | 2.00  | lite | 0 |
| ATOM | 53 | O   | SER | 7 | 48.136 | 59.024 | 25.407 | 1.00 | 14.14 | lite | 0 |
| ATOM | 54 | N   | CPR | 8 | 48.201 | 57.121 | 26.480 | 1.00 | 15.02 | lite | 0 |
| ATOM | 55 | CD  | CPR | 8 | 47.116 | 57.431 | 27.408 | 1.00 | 2.00  | lite | 0 |
| ATOM | 56 | CA  | CPR | 8 | 48.651 | 55.774 | 26.782 | 1.00 | 15.02 | lite | 0 |
| ATOM | 57 | CB  | CPR | 8 | 47.830 | 55.315 | 27.918 | 1.00 | 2.00  | lite | 0 |
| ATOM | 58 | CG  | CPR | 8 | 46.536 | 56.039 | 27.694 | 1.00 | 2.00  | lite | 0 |
| ATOM | 59 | C   | CPR | 8 | 48.452 | 54.845 | 25.620 | 1.00 | 15.02 | lite | 0 |
| ATOM | 60 | O   | CPR | 8 | 47.689 | 55.117 | 24.702 | 1.00 | 2.00  | lite | 0 |
| ATOM | 61 | N   | ALA | 9 | 49.116 | 53.717 | 25.711 | 1.00 | 2.00  | lite | 0 |
| ATOM | 62 | CA  | ALA | 9 | 48.951 | 52.737 | 24.677 | 1.00 | 2.00  | lite | 0 |
| ATOM | 63 | CB  | ALA | 9 | 50.028 | 51.695 | 24.742 | 1.00 | 21.76 | lite | 0 |
| ATOM | 64 | C   | ALA | 9 | 47.599 | 52.096 | 24.905 | 1.00 | 2.00  | lite | 0 |
| ATOM | 65 | O   | ALA | 9 | 46.980 | 51.784 | 23.892 | 1.00 | 21.76 | lite | 0 |

| ATOM | 66 | N | SER | 10 | 47.067 | 51.916 | 26.130 | 1.00 | 2.00 | lite | O |
|------|----|----|-----|----|--------|--------|--------|------|------|------|---|
| ATOM | 67 | CA | SER | 10 | 45.699 | 51.421 | 26.2.3 | 1.00 | 2.00 | lite | O |
| ATOM | 68 | CB | SER | 10 | 45.646 | 49.949 | 26.264 | 1.00 | 15.93 | lite | O |
| ATOM | 69 | OG | SER | 10 | 46.456 | 49.445 | 27.281 | 1.00 | 15.93 | lite | O |
| ATOM | 70 | C | SER | 10 | 45.123 | 51.877 | 27.603 | 1.00 | 2.00 | lite | O |
| ATOM | 71 | O | SER | 10 | 45.926 | 52.264 | 28.449 | 1.00 | 15.93 | lite | O |
| ATOM | 72 | N | LEU | 11 | 43.832 | 51.939 | 27.797 | 1.00 | 2.00 | lite | O |
| ATOM | 73 | CA | LEU | 11 | 43.334 | 52.386 | 29.062 | 1.00 | 2.00 | lite | O |
| ATOM | 74 | CB | LEU | 11 | 43.366 | 53.890 | 29.153 | 1.00 | 2.00 | lite | O |
| ATOM | 75 | CG | LEU | 11 | 42.854 | 54.957 | 28.235 | 1.00 | 2.00 | lite | O |
| ATOM | 76 | CD1 | LEU | 11 | 42.102 | 54.450 | 27.087 | 1.00 | 2.00 | lite | O |
| ATOM | 77 | CD2 | LEU | 11 | 41.998 | 55.823 | 29.091 | 1.00 | 2.00 | lite | O |
| ATOM | 78 | C | LEU | 11 | 41.942 | 51.918 | 29.387 | 1.00 | 2.00 | lite | O |
| ATOM | 79 | O | LEU | 11 | 41.241 | 51.501 | 28.492 | 1.00 | 2.00 | lite | O |
| ATOM | 80 | N | VAL | 12 | 41.470 | 51.892 | 30.611 | 1.00 | 2.00 | lite | O |
| ATOM | 81 | CA | VAL | 12 | 40.202 | 51.276 | 30.881 | 1.00 | 2.00 | lite | O |
| ATOM | 82 | CB | VAL | 12 | 40.368 | 50.121 | 31.820 | 1.00 | 8.56 | lite | O |
| ATOM | 83 | CG1 | VAL | 12 | 39.129 | 49.301 | 31.732 | 1.00 | 8.56 | lite | O |
| ATOM | 84 | CG2 | VAL | 12 | 41.511 | 49.260 | 31.441 | 1.00 | 8.56 | lite | O |
| ATOM | 85 | C | VAL | 12 | 39.457 | 52.361 | 31.561 | 1.00 | 2.00 | lite | O |
| ATOM | 86 | O | VAL | 12 | 39.869 | 52.755 | 32.661 | 1.00 | 8.56 | lite | O |
| ATOM | 87 | N | VAL | 13 | 38.436 | 52.910 | 30.954 | 1.00 | 2.00 | lite | O |
| ATOM | 88 | CA | VAL | 13 | 37.789 | 53.982 | 31.665 | 1.00 | 2.00 | lite | O |
| ATOM | 89 | CB | VAL | 13 | 38.043 | 55.200 | 30.770 | 1.00 | 9.46 | lite | O |
| ATOM | 90 | CG1 | VAL | 13 | 36.937 | 55.569 | 29.888 | 1.00 | 9.46 | lite | O |
| ATOM | 91 | CG2 | VAL | 13 | 38.209 | 56.346 | 31.691 | 1.00 | 9.46 | lite | O |
| ATOM | 92 | C | VAL | 13 | 36.337 | 53.617 | 31.977 | 1.00 | 2.00 | lite | O |
| ATOM | 93 | O | VAL | 13 | 35.766 | 52.870 | 31.193 | 1.00 | 9.46 | lite | O |
| ATOM | 94 | N | SER | 14 | 35.675 | 53.977 | 33.070 | 1.00 | 2.00 | lite | O |
| ATOM | 95 | CA | SER | 14 | 34.324 | 53.483 | 33.320 | 1.00 | 2.00 | lite | O |
| ATOM | 96 | CB | SER | 14 | 34.092 | 53.351 | 34.794 | 1.00 | 31.61 | lite | O |
| ATOM | 97 | OG | SER | 14 | 35.245 | 53.857 | 35.493 | 1.00 | 31.61 | lite | O |
| ATOM | 98 | C | SER | 14 | 33.321 | 54.446 | 32.731 | 1.00 | 2.00 | lite | O |
| ATOM | 99 | O | SER | 14 | 33.630 | 55.619 | 32.501 | 1.00 | 31.61 | lite | O |
| ATOM | 100 | N | LEU | 15 | 32.132 | 53.953 | 32.408 | 1.00 | 2.00 | lite | O |
| ATOM | 101 | CA | LEU | 15 | 31.086 | 54.779 | 31.819 | 1.00 | 2.00 | lite | O |
| ATOM | 102 | CB | LEU | 15 | 29.797 | 54.018 | 31.814 | 1.00 | 14.20 | lite | O |
| ATOM | 103 | CG | LEU | 15 | 29.829 | 52.842 | 30.909 | 1.00 | 14.20 | lite | O |
| ATOM | 104 | CD1 | LEU | 15 | 28.943 | 51.693 | 31.313 | 1.00 | 14.20 | lite | O |
| ATOM | 105 | CD2 | LEU | 15 | 29.467 | 53.455 | 29.596 | 1.00 | 14.20 | lite | O |
| ATOM | 106 | C | LEU | 15 | 30.856 | 56.101 | 32.545 | 1.00 | 2.00 | lite | O |
| ATOM | 107 | O | LEU | 15 | 30.976 | 56.192 | 33.767 | 1.00 | 14.20 | lite | O |
| ATOM | 108 | N | GLY | 16 | 30.581 | 57.188 | 31.820 | 1.00 | 25.70 | lite | O |
| ATOM | 109 | CA | GLY | 16 | 30.332 | 58.486 | 32.406 | 1.00 | 25.70 | lite | O |
| ATOM | 110 | C | GLY | 16 | 31.631 | 59.174 | 32.721 | 1.00 | 25.70 | lite | O |
| ATOM | 111 | O | GLY | 16 | 31.643 | 60.375 | 32.962 | 1.00 | 40.88 | lite | O |
| ATOM | 112 | N | GLN | 17 | 32.747 | 58.470 | 32.704 | 1.00 | 2.00 | lite | O |
| ATOM | 113 | CA | GLN | 17 | 34.028 | 59.066 | 33.011 | 1.00 | 2.00 | lite | O |
| ATOM | 114 | CB | GLN | 17 | 34.944 | 57.972 | 33.549 | 1.00 | 45.32 | lite | O |
| ATOM | 115 | CG | GLN | 17 | 34.450 | 57.508 | 34.890 | 1.00 | 45.32 | lite | O |
| ATOM | 116 | CD | GLN | 17 | 34.166 | 58.744 | 35.702 | 1.00 | 45.32 | lite | O |
| ATOM | 117 | OE1 | GLN | 17 | 35.039 | 59.582 | 35.902 | 1.00 | 45.32 | lite | O |
| ATOM | 118 | NE2 | GLN | 17 | 32.920 | 58.970 | 36.064 | 1.00 | 45.32 | lite | O |
| ATOM | 119 | C | GLN | 17 | 34.754 | 59.813 | 31.925 | 1.00 | 2.00 | lite | O |
| ATOM | 120 | O | GLN | 17 | 34.250 | 59.982 | 30.807 | 1.00 | 45.32 | lite | O |
| ATOM | 121 | N | ARG | 18 | 35.961 | 60.263 | 32.239 | 1.00 | 2.00 | lite | O |
| ATOM | 122 | CA | ARG | 18 | 36.694 | 60.887 | 31.197 | 1.00 | 2.00 | lite | O |
| ATOM | 123 | CB | ARG | 18 | 36.885 | 62.303 | 31.545 | 1.00 | 58.93 | lite | O |
| ATOM | 124 | CG | ARG | 18 | 37.792 | 62.612 | 32.684 | 1.00 | 58.93 | lite | O |
| ATOM | 125 | CD | ARG | 18 | 38.632 | 63.796 | 32.220 | 1.00 | 58.93 | lite | O |
| ATOM | 126 | NE | ARG | 18 | 37.792 | 64.885 | 31.745 | 1.00 | 58.93 | lite | O |
| ATOM | 127 | CZ | ARG | 18 | 37.734 | 66.070 | 32.358 | 1.00 | 58.93 | lite | O |
| ATOM | 128 | NH1 | ARG | 18 | 38.459 | 66.331 | 33.464 | 1.00 | 58.93 | lite | O |
| ATOM | 129 | NH2 | ARG | 18 | 36.925 | 67.016 | 31.851 | 1.00 | 58.93 | lite | O |
| ATOM | 130 | C | ARG | 18 | 38.003 | 60.238 | 30.903 | 1.00 | 2.00 | lite | O |
| ATOM | 131 | O | ARG | 18 | 38.763 | 59.783 | 31.753 | 1.00 | 58.93 | lite | O |
| ATOM | 132 | N | ALA | 19 | 38.207 | 60.143 | 29.604 | 1.00 | 2.00 | lite | O |

| ATOM | 133 | CA | ALA | 19 | 39.416 | 59.557 | 29.084 | 1.00 | 2.00 | lite | 0 |
|------|-----|-----|-----|----|--------|--------|--------|------|-------|------|---|
| ATOM | 134 | CB | ALA | 19 | 39.094 | 58.540 | 28.028 | 1.00 | 2.00 | lite | 0 |
| ATOM | 135 | C | ALA | 19 | 40.062 | 60.739 | 28.433 | 1.00 | 2.00 | lite | 0 |
| ATOM | 136 | O | ALA | 19 | 39.389 | 61.621 | 27.892 | 1.00 | 2.00 | lite | 0 |
| ATOM | 137 | N | THR | 20 | 41.370 | 60.646 | 28.400 | 1.00 | 2.00 | lite | 0 |
| ATOM | 138 | CA | THR | 20 | 42.243 | 61.661 | 27.833 | 1.00 | 2.00 | lite | 0 |
| ATOM | 139 | CB | THR | 20 | 42.877 | 52.433 | 28.970 | 1.00 | 23.05 | lite | 0 |
| ATOM | 140 | OG1 | THR | 20 | 41.797 | 63.169 | 29.510 | 1.00 | 23.05 | lite | 0 |
| ATOM | 141 | CG2 | THR | 20 | 44.055 | 63.274 | 28.594 | 1.00 | 23.05 | lite | 0 |
| ATOM | 142 | C | THR | 20 | 43.330 | 61.002 | 27.021 | 1.00 | 2.00 | lite | 0 |
| ATOM | 143 | O | THR | 20 | 44.242 | 60.420 | 27.625 | 1.00 | 23.05 | lite | 0 |
| ATOM | 144 | N | ILE | 21 | 43.283 | 61.042 | 25.705 | 1.00 | 2.00 | lite | 0 |
| ATOM | 145 | CA | ILE | 21 | 44.360 | 60.464 | 24.946 | 1.00 | 2.00 | lite | 0 |
| ATOM | 146 | CB | ILE | 21 | 43.676 | 59.698 | 23.860 | 1.00 | 9.42 | lite | 0 |
| ATOM | 147 | CG2 | ILE | 21 | 44.764 | 59.050 | 23.060 | 1.00 | 9.42 | lite | 0 |
| ATOM | 148 | CG1 | ILE | 21 | 42.741 | 58.638 | 24.401 | 1.00 | 9.42 | lite | 0 |
| ATOM | 149 | CD1 | ILE | 21 | 42.061 | 57.813 | 23.308 | 1.00 | 9.42 | lite | 0 |
| ATOM | 150 | C | ILE | 21 | 45.275 | 61.576 | 24.463 | 1.00 | 2.00 | lite | 0 |
| ATOM | 151 | O | ILE | 21 | 44.799 | 62.649 | 24.087 | 1.00 | 9.42 | lite | 0 |
| ATOM | 152 | N | SER | 22 | 46.578 | 61.427 | 24.438 | 1.00 | 2.00 | lite | 0 |
| ATOM | 153 | CA | SER | 22 | 47.458 | 62.505 | 23.995 | 1.00 | 2.00 | lite | 0 |
| ATOM | 154 | CB | SER | 22 | 48.309 | 62.972 | 25.145 | 1.00 | 24.32 | lite | 0 |
| ATOM | 155 | OG | SER | 22 | 49.000 | 61.923 | 25.836 | 1.00 | 24.32 | lite | 0 |
| ATOM | 156 | C | SER | 22 | 48.356 | 62.054 | 22.875 | 1.00 | 2.00 | lite | 0 |
| ATOM | 157 | O | SER | 22 | 48.767 | 60.899 | 22.784 | 1.00 | 24.32 | lite | 0 |
| ATOM | 158 | N | CYS | 23 | 48.676 | 62.959 | 21.984 | 1.00 | 11.05 | lite | 0 |
| ATOM | 159 | CA | CYS | 23 | 49.455 | 62.639 | 20.803 | 1.00 | 11.05 | lite | 0 |
| ATOM | 160 | C | CYS | 23 | 50.440 | 63.751 | 20.606 | 1.00 | 11.05 | lite | 0 |
| ATOM | 161 | O | CYS | 23 | 50.058 | 64.913 | 20.616 | 1.00 | 2.00 | lite | 0 |
| ATOM | 162 | CB | CYS | 23 | 48.486 | 62.531 | 19.673 | 1.00 | 2.00 | lite | 0 |
| ATOM | 163 | SG | CYS | 23 | 49.184 | 62.275 | 18.034 | 1.00 | 2.00 | lite | 0 |
| ATOM | 164 | N | ARG | 24 | 51.693 | 63.375 | 20.547 | 1.00 | 2.00 | lite | 0 |
| ATOM | 165 | CA | ARG | 24 | 52.784 | 64.292 | 20.393 | 1.00 | 2.00 | lite | 0 |
| ATOM | 166 | CB | ARG | 24 | 53.786 | 64.182 | 21.506 | 1.00 | 54.53 | lite | 0 |
| ATOM | 167 | CG | ARG | 24 | 53.408 | 64.837 | 22.795 | 1.00 | 54.53 | lite | 0 |
| ATOM | 168 | CD | ARG | 24 | 54.601 | 64.451 | 23.625 | 1.00 | 54.53 | lite | 0 |
| ATOM | 169 | NE | ARG | 24 | 54.677 | 65.166 | 24.890 | 1.00 | 54.53 | lite | 0 |
| ATOM | 170 | CZ | ARG | 24 | 54.808 | 64.555 | 26.093 | 1.00 | 54.53 | lite | 0 |
| ATOM | 171 | NH1 | ARG | 24 | 54.869 | 63.224 | 26.247 | 1.00 | 54.53 | lite | 0 |
| ATOM | 172 | NH2 | ARG | 24 | 54.936 | 65.310 | 27.190 | 1.00 | 54.53 | lite | 0 |
| ATOM | 173 | C | ARG | 24 | 53.547 | 64.046 | 19.095 | 1.00 | 2.00 | lite | 0 |
| ATOM | 174 | O | ARG | 24 | 53.791 | 62.939 | 18.618 | 1.00 | 54.53 | lite | 0 |
| ATOM | 175 | N | ALA | 25 | 53.921 | 65.167 | 18.510 | 1.00 | 2.00 | lite | 0 |
| ATOM | 176 | CA | ALA | 25 | 54.557 | 65.151 | 17.227 | 1.00 | 2.00 | lite | 0 |
| ATOM | 177 | CB | ALA | 25 | 53.846 | 66.087 | 16.294 | 1.00 | 8.62 | lite | 0 |
| ATOM | 178 | C | ALA | 25 | 55.951 | 65.646 | 17.452 | 1.00 | 2.00 | lite | 0 |
| ATOM | 179 | O | ALA | 25 | 56.064 | 66.646 | 18.152 | 1.00 | 8.62 | lite | 0 |
| ATOM | 180 | N | SER | 26 | 56.977 | 64.964 | 16.914 | 1.00 | 14.83 | lite | 0 |
| ATOM | 181 | CA | SER | 26 | 58.399 | 65.329 | 16.967 | 1.00 | 14.83 | lite | 0 |
| ATOM | 182 | CB | SER | 26 | 59.233 | 64.361 | 16.204 | 1.00 | 19.92 | lite | 0 |
| ATOM | 183 | OG | SER | 26 | 58.457 | 63.939 | 15.090 | 1.00 | 19.92 | lite | 0 |
| ATOM | 184 | C | SER | 26 | 58.809 | 66.681 | 16.433 | 1.00 | 14.83 | lite | 0 |
| ATOM | 185 | O | SER | 26 | 59.955 | 67.065 | 16.601 | 1.00 | 19.92 | lite | 0 |
| ATOM | 186 | N | GLU | 27 | 57.909 | 67.380 | 15.753 | 1.00 | 25.94 | lite | 0 |
| ATOM | 187 | CA | GLU | 27 | 58.144 | 68.646 | 15.143 | 1.00 | 25.94 | lite | 0 |
| ATOM | 188 | CB | GLU | 27 | 58.836 | 68.443 | 13.826 | 1.00 | 62.64 | lite | 0 |
| ATOM | 189 | CG | GLU | 27 | 60.247 | 68.996 | 13.839 | 1.00 | 62.64 | lite | 0 |
| ATOM | 190 | CD | GLU | 27 | 61.181 | 68.164 | 12.966 | 1.00 | 62.64 | lite | 0 |
| ATOM | 191 | OE1 | GLU | 27 | 61.404 | 68.562 | 11.808 | 1.00 | 62.64 | lite | 0 |
| ATOM | 192 | OE2 | GLU | 27 | 61.663 | 67.118 | 13.452 | 1.00 | 62.64 | lite | 0 |
| ATOM | 193 | C | GLU | 27 | 56.760 | 69.198 | 14.941 | 1.00 | 25.94 | lite | 0 |
| ATOM | 194 | O | GLU | 27 | 55.743 | 68.507 | 14.998 | 1.00 | 62.64 | lite | 0 |
| ATOM | 195 | N | SER | 28 | 56.743 | 70.486 | 14.669 | 1.00 | 2.00 | lite | 0 |
| ATOM | 196 | CA | SER | 28 | 55.497 | 71.148 | 14.479 | 1.00 | 2.00 | lite | 0 |
| ATOM | 197 | CB | SER | 28 | 55.693 | 72.609 | 14.437 | 1.00 | 27.41 | lite | 0 |
| ATOM | 198 | OG | SER | 28 | 54.361 | 73.084 | 14.416 | 1.00 | 27.41 | lite | 0 |
| ATOM | 199 | C | SER | 28 | 54.786 | 70.741 | 13.220 | 1.00 | 2.00 | lite | 0 |

| ATOM | 200 | O | SER | 28 | 55.273 | 70.759 | 12.075 | 1.00 | 27.41 | lite | 0 |
|------|-----|-----|-----|-----|--------|--------|--------|------|-------|------|---|
| ATOM | 201 | N | VAL | 29 | 53.521 | 70.531 | 13.535 | 1.00 | 2.00 | lite | 0 |
| ATOM | 202 | CA | VAL | 29 | 52.666 | 70.165 | 12.457 | 1.00 | 2.00 | lite | 0 |
| ATOM | 203 | CB | VAL | 29 | 51.774 | 68.984 | 12.871 | 1.00 | 2.00 | lite | 0 |
| ATOM | 204 | CG1 | VAL | 29 | 52.670 | 67.812 | 13.138 | 1.00 | 2.00 | lite | 0 |
| ATOM | 205 | CG2 | VAL | 29 | 50.963 | 69.290 | 14.070 | 1.00 | 2.00 | lite | 0 |
| ATOM | 206 | C | VAL | 29 | 51.850 | 71.359 | 12.073 | 1.00 | 2.00 | lite | 0 |
| ATOM | 207 | O | VAL | 29 | 50.702 | 71.143 | 11.646 | 1.00 | 2.00 | lite | 0 |
| ATOM | 208 | N | ASP | 30 | 52.400 | 72.575 | 12.236 | 1.00 | 17.66 | lite | 0 |
| ATOM | 209 | CA | ASP | 30 | 51.681 | 73.814 | 11.907 | 1.00 | 17.66 | lite | 0 |
| ATOM | 210 | CB | ASP | 30 | 51.838 | 74.867 | 13.003 | 1.00 | 49.58 | lite | 0 |
| ATOM | 211 | CG | ASP | 30 | 51.079 | 74.589 | 14.289 | 1.00 | 49.58 | lite | 0 |
| ATOM | 212 | OD1 | ASP | 30 | 51.286 | 75.291 | 15.278 | 1.00 | 49.58 | lite | 0 |
| ATOM | 213 | OD2 | ASP | 30 | 50.299 | 73.653 | 14.310 | 1.00 | 49.58 | lite | 0 |
| ATOM | 214 | C | ASP | 30 | 52.054 | 74.522 | 10.607 | 1.00 | 17.66 | lite | 0 |
| ATOM | 215 | O | ASP | 30 | 53.225 | 74.535 | 10.185 | 1.00 | 49.58 | lite | 0 |
| ATOM | 216 | N | SER | 31 | 51.026 | 75.089 | 9.980 | 1.00 | 27.08 | lite | 0 |
| ATOM | 217 | CA | SER | 31 | 51.208 | 75.908 | 8.799 | 1.00 | 27.08 | lite | 0 |
| ATOM | 218 | CB | SER | 31 | 51.438 | 75.030 | 7.573 | 1.00 | 53.95 | lite | 0 |
| ATOM | 219 | OG | SER | 31 | 50.349 | 74.168 | 7.280 | 1.00 | 53.95 | lite | 0 |
| ATOM | 220 | C | SER | 31 | 49.926 | 76.725 | 8.631 | 1.00 | 27.08 | lite | 0 |
| ATOM | 221 | O | SER | 31 | 48.870 | 76.225 | 9.054 | 1.00 | 53.95 | lite | 0 |
| ATOM | 222 | N | TYR | 32 | 49.954 | 77.931 | 8.001 | 1.00 | 34.72 | lite | 0 |
| ATOM | 223 | CA | TYR | 32 | 48.829 | 78.879 | 7.852 | 1.00 | 34.72 | lite | 0 |
| ATOM | 224 | CB | TYR | 32 | 47.805 | 78.409 | 6.782 | 1.00 | 45.25 | lite | 0 |
| ATOM | 225 | CG | TYR | 32 | 48.499 | 78.087 | 5.466 | 1.00 | 45.25 | lite | 0 |
| ATOM | 226 | CD1 | TYR | 32 | 48.401 | 76.818 | 4.950 | 1.00 | 45.25 | lite | 0 |
| ATOM | 227 | CE1 | TYR | 32 | 49.109 | 76.463 | 3.808 | 1.00 | 45.25 | lite | 0 |
| ATOM | 228 | CD2 | TYR | 32 | 49.308 | 79.001 | 4.815 | 1.00 | 45.25 | lite | 0 |
| ATOM | 229 | CE2 | TYR | 32 | 50.018 | 78.656 | 3.673 | 1.00 | 45.25 | lite | 0 |
| ATOM | 230 | CZ | TYR | 32 | 49.931 | 77.373 | 3.159 | 1.00 | 45.25 | lite | 0 |
| ATOM | 231 | OH | TYR | 32 | 50.679 | 76.965 | 2.050 | 1.00 | 45.25 | lite | 0 |
| ATOM | 232 | C | TYR | 32 | 48.077 | 79.123 | 9.156 | 1.00 | 34.72 | lite | 0 |
| ATOM | 233 | O | TYR | 32 | 46.848 | 79.333 | 9.185 | 1.00 | 45.25 | lite | 0 |
| ATOM | 234 | N | GLY | 33 | 48.938 | 79.049 | 10.208 | 1.00 | 33.99 | lite | 0 |
| ATOM | 235 | CA | GLY | 33 | 48.522 | 79.148 | 11.597 | 1.00 | 33.99 | lite | 0 |
| ATOM | 236 | C | GLY | 33 | 47.425 | 78.158 | 12.017 | 1.00 | 33.99 | lite | 0 |
| ATOM | 237 | O | GLY | 33 | 46.618 | 78.507 | 12.881 | 1.00 | 47.90 | lite | 0 |
| ATOM | 238 | N | LYS | 34 | 47.351 | 76.945 | 11.432 | 1.00 | 56.14 | lite | 0 |
| ATOM | 239 | CA | LYS | 34 | 46.438 | 75.872 | 11.822 | 1.00 | 56.14 | lite | 0 |
| ATOM | 240 | CB | LYS | 34 | 45.456 | 75.625 | 10.681 | 1.00 | 47.79 | lite | 0 |
| ATOM | 241 | CG | LYS | 34 | 44.350 | 76.656 | 10.456 | 1.00 | 47.79 | lite | 0 |
| ATOM | 242 | CD | LYS | 34 | 43.672 | 76.435 | 9.074 | 1.00 | 47.79 | lite | 0 |
| ATOM | 243 | CE | LYS | 34 | 42.117 | 76.678 | 9.034 | 1.00 | 47.79 | lite | 0 |
| ATOM | 244 | NZ | LYS | 34 | 41.471 | 76.533 | 7.723 | 1.00 | 47.79 | lite | 0 |
| ATOM | 245 | C | LYS | 34 | 47.298 | 74.615 | 12.113 | 1.00 | 56.14 | lite | 0 |
| ATOM | 246 | O | LYS | 34 | 48.446 | 74.515 | 11.637 | 1.00 | 47.79 | lite | 0 |
| ATOM | 247 | N | SER | 35 | 46.847 | 73.655 | 12.940 | 1.00 | 23.71 | lite | 0 |
| ATOM | 248 | CA | SER | 35 | 47.627 | 72.457 | 13.200 | 1.00 | 23.71 | lite | 0 |
| ATOM | 249 | CB | SER | 35 | 47.634 | 72.207 | 14.641 | 1.00 | 19.18 | lite | 0 |
| ATOM | 250 | OG | SER | 35 | 48.033 | 73.368 | 15.374 | 1.00 | 19.18 | lite | 0 |
| ATOM | 251 | C | SER | 35 | 46.950 | 71.328 | 12.456 | 1.00 | 23.71 | lite | 0 |
| ATOM | 252 | O | SER | 35 | 45.786 | 70.913 | 12.658 | 1.00 | 19.18 | lite | 0 |
| ATOM | 253 | N | PHE | 36 | 47.759 | 70.847 | 11.533 | 1.00 | 16.57 | lite | 0 |
| ATOM | 254 | CA | PHE | 36 | 47.232 | 69.934 | 10.584 | 1.00 | 16.57 | lite | 0 |
| ATOM | 255 | CB | PHE | 36 | 47.926 | 70.198 | 9.281 | 1.00 | 21.87 | lite | 0 |
| ATOM | 256 | CG | PHE | 36 | 47.264 | 71.325 | 8.500 | 1.00 | 21.87 | lite | 0 |
| ATOM | 257 | CD1 | PHE | 36 | 47.881 | 72.556 | 8.388 | 1.00 | 21.87 | lite | 0 |
| ATOM | 258 | CD2 | PHE | 36 | 46.046 | 71.097 | 7.912 | 1.00 | 21.87 | lite | 0 |
| ATOM | 259 | CE1 | PHE | 36 | 47.267 | 73.552 | 7.676 | 1.00 | 21.87 | lite | 0 |
| ATOM | 260 | CE2 | PHE | 36 | 45.439 | 72.098 | 7.201 | 1.00 | 21.87 | lite | 0 |
| ATOM | 261 | CZ | PHE | 36 | 46.048 | 73.318 | 7.091 | 1.00 | 21.87 | lite | 0 |
| ATOM | 262 | C | PHE | 36 | 47.363 | 68.511 | 10.996 | 1.00 | 16.57 | lite | 0 |
| ATOM | 263 | O | PHE | 36 | 47.963 | 67.717 | 10.262 | 1.00 | 21.87 | lite | 0 |
| ATOM | 264 | N | MET | 37 | 46.783 | 68.211 | 12.166 | 1.00 | 14.25 | lite | 0 |
| ATOM | 265 | CA | MET | 37 | 46.769 | 66.861 | 12.676 | 1.00 | 14.25 | lite | 0 |
| ATOM | 266 | CB | MET | 37 | 47.721 | 66.691 | 13.861 | 1.00 | 22.88 | lite | 0 |

| ATOM | 267 | CG | MET | 37 | 47.348 | 67.331 | 15.140 | 1.00 | 22.88 | lite | O |
|------|-----|-----|-----|----|--------|--------|--------|------|-------|------|---|
| ATOM | 268 | SD | MET | 37 | 45.893 | 66.599 | 15.893 | 1.00 | 22.88 | lite | O |
| ATOM | 269 | CE | MET | 37 | 46.669 | 65.055 | 16.225 | 1.00 | 22.88 | lite | O |
| ATOM | 270 | C | MET | 37 | 45.333 | 66.593 | 13.072 | 1.00 | 14.25 | lite | O |
| ATOM | 271 | O | MET | 37 | 44.563 | 67.495 | 13.410 | 1.00 | 22.88 | lite | O |
| ATOM | 272 | N | HIS | 38 | 44.942 | 65.341 | 12.866 | 1.00 | 13.33 | lite | O |
| ATOM | 273 | CA | HIS | 38 | 43.577 | 64.883 | 13.013 | 1.00 | 13.33 | lite | O |
| ATOM | 274 | CB | HIS | 38 | 42.987 | 64.627 | 11.647 | 1.00 | 31.69 | lite | O |
| ATOM | 275 | CG | HIS | 38 | 43.428 | 65.595 | 10.548 | 1.00 | 31.69 | lite | O |
| ATOM | 276 | CD2 | HIS | 38 | 43.978 | 65.178 | 9.361 | 1.00 | 31.69 | lite | O |
| ATOM | 277 | ND1 | HIS | 38 | 43.403 | 66.914 | 10.477 | 1.00 | 31.69 | lite | O |
| ATOM | 278 | CE1 | HIS | 38 | 43.906 | 67.286 | 9.314 | 1.00 | 31.69 | lite | O |
| ATOM | 279 | NE2 | HIS | 38 | 44.246 | 66.231 | 8.648 | 1.00 | 31.69 | lite | O |
| ATOM | 280 | C | HIS | 38 | 43.490 | 63.594 | 13.836 | 1.00 | 13.33 | lite | O |
| ATOM | 281 | O | HIS | 38 | 44.467 | 62.855 | 13.915 | 1.00 | 31.69 | lite | O |
| ATOM | 282 | N | TRP | 39 | 42.364 | 63.318 | 14.468 | 1.00 | 2.00 | lite | O |
| ATOM | 283 | CA | TRP | 39 | 42.138 | 62.127 | 15.246 | 1.00 | 2.00 | lite | O |
| ATOM | 284 | CB | TRP | 39 | 41.518 | 62.417 | 16.587 | 1.00 | 2.00 | lite | O |
| ATOM | 285 | CG | TRP | 39 | 42.458 | 63.108 | 17.531 | 1.00 | 2.00 | lite | O |
| ATOM | 286 | CD2 | TRP | 39 | 43.339 | 62.522 | 18.381 | 1.00 | 2.00 | lite | O |
| ATOM | 287 | CE2 | TRP | 39 | 43.897 | 63.602 | 18.987 | 1.00 | 2.00 | lite | O |
| ATOM | 288 | CE3 | TRP | 39 | 43.739 | 61.264 | 18.727 | 1.00 | 2.00 | lite | O |
| ATOM | 289 | CD1 | TRP | 39 | 42.472 | 64.455 | 17.606 | 1.00 | 2.00 | lite | O |
| ATOM | 290 | NE1 | TRP | 39 | 43.374 | 64.729 | 18.511 | 1.00 | 2.00 | lite | O |
| ATOM | 291 | CZ2 | TRP | 39 | 44.848 | 63.479 | 19.949 | 1.00 | 2.00 | lite | O |
| ATOM | 292 | CZ3 | TRP | 39 | 44.701 | 61.132 | 19.699 | 1.00 | 2.00 | lite | O |
| ATOM | 293 | CH2 | TRP | 39 | 45.259 | 62.225 | 20.314 | 1.00 | 2.00 | lite | O |
| ATOM | 294 | C | TRP | 39 | 41.147 | 61.242 | 14.515 | 1.00 | 2.00 | lite | O |
| ATOM | 295 | O | TRP | 39 | 40.201 | 61.740 | 13.918 | 1.00 | 2.00 | lite | O |
| ATOM | 296 | N | TYR | 40 | 41.244 | 59.942 | 14.600 | 1.00 | 2.00 | lite | O |
| ATOM | 297 | CA | TYR | 40 | 40.393 | 59.030 | 13.918 | 1.00 | 2.00 | lite | O |
| ATOM | 298 | CB | TYR | 40 | 41.180 | 58.332 | 12.887 | 1.00 | 2.00 | lite | O |
| ATOM | 299 | CG | TYR | 40 | 41.537 | 59.132 | 11.665 | 1.00 | 2.00 | lite | O |
| ATOM | 300 | CD1 | TYR | 40 | 42.667 | 59.889 | 11.639 | 1.00 | 2.00 | lite | O |
| ATOM | 301 | CE1 | TYR | 40 | 42.965 | 60.616 | 10.512 | 1.00 | 2.00 | lite | O |
| ATOM | 302 | CD2 | TYR | 40 | 40.705 | 59.108 | 10.557 | 1.00 | 2.00 | lite | O |
| ATOM | 303 | CE2 | TYR | 40 | 40.996 | 59.825 | 9.429 | 1.00 | 2.00 | lite | O |
| ATOM | 304 | CZ | TYR | 40 | 42.121 | 60.559 | 9.457 | 1.00 | 2.00 | lite | O |
| ATOM | 305 | OH | TYR | 40 | 42.417 | 61.271 | 8.349 | 1.00 | 2.00 | lite | O |
| ATOM | 306 | C | TYR | 40 | 39.943 | 58.021 | 14.948 | 1.00 | 2.00 | lite | O |
| ATOM | 307 | O | TYR | 40 | 40.636 | 57.798 | 15.954 | 1.00 | 2.00 | lite | O |
| ATOM | 308 | N | GLN | 41 | 38.863 | 57.300 | 14.710 | 1.00 | 2.00 | lite | O |
| ATOM | 309 | CA | GLN | 41 | 38.410 | 56.269 | 15.633 | 1.00 | 2.00 | lite | O |
| ATOM | 310 | CB | GLN | 41 | 37.059 | 56.603 | 16.252 | 1.00 | 25.22 | lite | O |
| ATOM | 311 | CG | GLN | 41 | 36.501 | 55.573 | 17.202 | 1.00 | 25.22 | lite | O |
| ATOM | 312 | CD | GLN | 41 | 35.044 | 55.797 | 17.529 | 1.00 | 25.22 | lite | O |
| ATOM | 313 | OE1 | GLN | 41 | 34.187 | 55.853 | 16.649 | 1.00 | 25.22 | lite | O |
| ATOM | 314 | NE2 | GLN | 41 | 34.717 | 55.916 | 18.807 | 1.00 | 25.22 | lite | O |
| ATOM | 315 | C | GLN | 41 | 38.234 | 55.035 | 14.785 | 1.00 | 2.00 | lite | O |
| ATOM | 316 | O | GLN | 41 | 37.773 | 55.164 | 13.652 | 1.00 | 25.22 | lite | O |
| ATOM | 317 | N | GLN | 42 | 38.559 | 53.831 | 15.249 | 1.00 | 2.00 | lite | O |
| ATOM | 318 | CA | GLN | 42 | 38.359 | 52.662 | 14.427 | 1.00 | 2.00 | lite | O |
| ATOM | 319 | CB | GLN | 42 | 39.667 | 52.162 | 13.873 | 1.00 | 2.00 | lite | O |
| ATOM | 320 | CG | GLN | 42 | 39.421 | 51.011 | 12.970 | 1.00 | 2.00 | lite | O |
| ATOM | 321 | CD | GLN | 42 | 40.671 | 50.450 | 12.369 | 1.00 | 2.00 | lite | O |
| ATOM | 322 | OE1 | GLN | 42 | 41.799 | 50.661 | 12.778 | 1.00 | 2.00 | lite | O |
| ATOM | 323 | NE2 | GLN | 42 | 40.556 | 49.652 | 11.360 | 1.00 | 2.00 | lite | O |
| ATOM | 324 | C | GLN | 42 | 37.777 | 51.656 | 15.354 | 1.00 | 2.00 | lite | O |
| ATOM | 325 | O | GLN | 42 | 38.459 | 51.163 | 16.267 | 1.00 | 2.00 | lite | O |
| ATOM | 326 | N | LYS | 43 | 36.455 | 51.495 | 15.201 | 1.00 | 2.00 | lite | O |
| ATOM | 327 | CA | LYS | 43 | 35.740 | 50.409 | 15.881 | 1.00 | 2.00 | lite | O |
| ATOM | 328 | CB | LYS | 43 | 34.233 | 50.496 | 15.698 | 1.00 | 38.63 | lite | O |
| ATOM | 329 | CG | LYS | 43 | 33.603 | 51.184 | 16.875 | 1.00 | 38.63 | lite | O |
| ATOM | 330 | CD | LYS | 43 | 33.003 | 52.500 | 16.453 | 1.00 | 38.63 | lite | O |
| ATOM | 331 | CE | LYS | 43 | 31.550 | 52.387 | 16.927 | 1.00 | 38.63 | lite | O |
| ATOM | 332 | NZ | LYS | 43 | 30.682 | 53.402 | 16.349 | 1.00 | 38.63 | lite | O |
| ATOM | 333 | C | LYS | 43 | 36.246 | 49.183 | 15.171 | 1.00 | 2.00 | lite | O |

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ATOM    334  O    LYS   43      36.670  49.285  14.021  1.00  38.63      lite  O
ATOM    335  N    PRO   44      36.304  48.009  15.719  1.00  39.18      lite  O
ATOM    336  CD   PRO   44      35.583  47.622  16.909  1.00  39.31      lite  O
ATOM    337  CA   PRO   44      36.928  46.885  15.056  1.00  39.31      lite  O
ATOM    338  CB   PRO   44      36.828  45.851  16.129  1.00  39.31      lite  O
ATOM    339  CG   PRO   44      35.479  46.132  16.735  1.00  39.31      lite  O
ATOM    340  C    PRO   44      36.290  46.515  13.709  1.00  39.18      lite  O
ATOM    341  O    PRO   44      35.065  46.541  13.563  1.00  39.31      lite  O
ATOM    342  N    GLY   45      37.144  46.233  12.716  1.00  50.31      lite  O
ATOM    343  CA   GLY   45      36.710  45.835  11.382  1.00  50.31      lite  O
ATOM    344  C    GLY   45      35.811  46.898  10.774  1.00  50.31      lite  O
ATOM    345  O    GLY   45      34.742  46.649  10.267  1.00   2.00      lite  O
ATOM    346  N    GLN   46      36.145  48.135  11.020  1.00   2.00      lite  O
ATOM    347  CA   GLN   46      35.538  49.295  10.428  1.00   2.00      lite  O
ATOM    348  CB   GLN   46      34.813  50.206  11.458  1.00  59.66      lite  O
ATOM    349  CG   GLN   46      33.295  50.275  11.363  1.00  59.66      lite  O
ATOM    350  CD   GLN   46      32.796  48.897  10.976  1.00  59.66      lite  O
ATOM    351  OE1  GLN   46      32.283  48.656   9.873  1.00  59.66      lite  O
ATOM    352  NE2  GLN   46      33.050  47.936  11.854  1.00  59.66      lite  O
ATOM    353  C    GLN   46      36.799  50.005   9.961  1.00   2.00      lite  O
ATOM    354  O    GLN   46      37.866  49.924  10.589  1.00  59.66      lite  O
ATOM    355  N    PRO   47      36.758  50.692   8.848  1.00   2.00      lite  O
ATOM    356  CD   PRO   47      35.802  50.434   7.780  1.00  24.53      lite  O
ATOM    357  CA   PRO   47      37.735  51.716   8.523  1.00   2.00      lite  O
ATOM    358  CB   PRO   47      37.293  52.209   7.185  1.00  24.53      lite  O
ATOM    359  CG   PRO   47      35.834  51.781   7.099  1.00  24.53      lite  O
ATOM    360  C    PRO   47      37.747  52.778   9.581  1.00   2.00      lite  O
ATOM    361  O    PRO   47      36.724  53.006  10.231  1.00  24.53      lite  O
ATOM    362  N    PRO   48      38.879  53.433   9.794  1.00   2.00      lite  O
ATOM    363  CD   PRO   48      40.084  53.315   9.010  1.00  15.58      lite  O
ATOM    364  CA   PRO   48      38.962  54.565  10.690  1.00   2.00      lite  O
ATOM    365  CB   PRO   48      40.339  55.083  10.470  1.00  15.58      lite  O
ATOM    366  CG   PRO   48      41.102  53.915   9.921  1.00  15.58      lite  O
ATOM    367  C    PRO   48      37.865  55.536  10.271  1.00   2.00      lite  O
ATOM    368  O    PRO   48      37.483  55.535   9.095  1.00  15.58      lite  O
ATOM    369  N    LYS   49      37.308  56.287  11.215  1.00   2.00      lite  O
ATOM    370  CA   LYS   49      36.316  57.349  11.056  1.00   2.00      lite  O
ATOM    371  CB   LYS   49      35.119  57.179  11.988  1.00  33.11      lite  O
ATOM    372  CG   LYS   49      34.021  58.261  11.899  1.00  33.11      lite  O
ATOM    373  CD   LYS   49      32.987  58.289  13.041  1.00  33.11      lite  O
ATOM    374  CE   LYS   49      32.478  56.875  13.340  1.00  33.11      lite  O
ATOM    375  NZ   LYS   49      31.654  56.916  14.522  1.00  33.11      lite  O
ATOM    376  C    LYS   49      37.062  58.594  11.519  1.00   2.00      lite  O
ATOM    377  O    LYS   49      37.833  58.602  12.490  1.00  33.11      lite  O
ATOM    378  N    VAL   50      36.872  59.687  10.822  1.00  18.48      lite  O
ATOM    379  CA   VAL   50      37.417  60.932  11.327  1.00  18.48      lite  O
ATOM    380  CB   VAL   50      37.287  62.043  10.377  1.00  18.11      lite  O
ATOM    381  CG1  VAL   50      38.433  62.977  10.724  1.00  18.11      lite  O
ATOM    382  CG2  VAL   50      37.214  61.546   8.930  1.00  18.11      lite  O
ATOM    383  C    VAL   50      36.592  61.319  12.529  1.00  18.48      lite  O
ATOM    384  O    VAL   50      35.400  61.031  12.606  1.00  18.11      lite  O
ATOM    385  N    LEU   51      37.240  61.910  13.500  1.00   2.00      lite  O
ATOM    386  CA   LEU   51      36.488  62.376  14.647  1.00   2.00      lite  O
ATOM    387  CB   LEU   51      36.969  61.978  16.020  1.00  18.58      lite  O
ATOM    388  CG   LEU   51      36.719  60.597  16.466  1.00  18.58      lite  O
ATOM    389  CD1  LEU   51      36.929  60.535  17.949  1.00  18.58      lite  O
ATOM    390  CD2  LEU   51      35.322  60.209  16.126  1.00  18.58      lite  O
ATOM    391  C    LEU   51      36.684  63.827  14.643  1.00   2.00      lite  O
ATOM    392  O    LEU   51      35.696  64.533  14.593  1.00  18.58      lite  O
ATOM    393  N    ILE   52      37.941  64.243  14.678  1.00  27.51      lite  O
ATOM    394  CA   ILE   52      38.316  65.642  14.791  1.00  27.51      lite  O
ATOM    395  CB   ILE   52      38.792  65.896  16.249  1.00  27.51      lite  O
ATOM    396  CG2  ILE   52      39.441  67.269  16.396  1.00  23.51      lite  O
ATOM    397  CG1  ILE   52      37.572  65.744  17.172  1.00  23.51      lite  O
ATOM    398  CD1  ILE   52      37.958  65.562  18.645  1.00  23.51      lite  O
ATOM    399  C    ILE   52      39.397  65.987  13.790  1.00  27.51      lite  O
ATOM    400  O    ILE   52      40.390  65.277  13.641  1.00  23.51      lite  O
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16:31:09

| ATOM | 401 | N | TYR | 53 | 39.204 | 67.053 | 13.051 | 1.00 | 17.96 | lite | O |
|------|-----|-----|-----|----|--------|--------|--------|------|-------|------|---|
| ATOM | 402 | CA | TYR | 53 | 40.192 | 67.475 | 12.109 | 1.00 | 17.96 | lite | O |
| ATOM | 403 | CB | TYR | 53 | 39.621 | 67.454 | 10.755 | 1.00 | 28.13 | lite | O |
| ATOM | 404 | CG | TYR | 53 | 38.424 | 68.350 | 10.565 | 1.00 | 28.13 | lite | O |
| ATOM | 405 | CD1 | TYR | 53 | 37.164 | 67.837 | 10.806 | 1.00 | 28.13 | lite | O |
| ATOM | 406 | CE1 | TYR | 53 | 36.041 | 68.587 | 10.578 | 1.00 | 28.13 | lite | O |
| ATOM | 407 | CD2 | TYR | 53 | 38.611 | 69.627 | 10.101 | 1.00 | 28.13 | lite | O |
| ATOM | 408 | CE2 | TYR | 53 | 37.494 | 70.385 | 9.867 | 1.00 | 28.13 | lite | O |
| ATOM | 409 | CZ | TYR | 53 | 36.229 | 69.865 | 10.107 | 1.00 | 28.13 | lite | O |
| ATOM | 410 | OH | TYR | 53 | 35.118 | 70.655 | 9.875 | 1.00 | 28.13 | lite | O |
| ATOM | 411 | C | TYR | 53 | 40.645 | 68.853 | 12.477 | 1.00 | 17.96 | lite | O |
| ATOM | 412 | O | TYR | 53 | 40.036 | 69.595 | 13.236 | 1.00 | 28.13 | lite | O |
| ATOM | 413 | N | ILE | 54 | 41.764 | 69.102 | 11.823 | 1.00 | 2.00 | lite | O |
| ATOM | 414 | CA | ILE | 54 | 42.636 | 70.243 | 12.074 | 1.00 | 2.00 | lite | O |
| ATOM | 415 | CB | ILE | 54 | 42.230 | 71.355 | 11.149 | 1.00 | 28.65 | lite | O |
| ATOM | 416 | CG2 | ILE | 54 | 43.161 | 72.533 | 11.340 | 1.00 | 28.65 | lite | O |
| ATOM | 417 | CG1 | ILE | 54 | 42.356 | 70.859 | 9.723 | 1.00 | 28.65 | lite | O |
| ATOM | 418 | CD1 | ILE | 54 | 41.759 | 71.633 | 8.558 | 1.00 | 28.65 | lite | O |
| ATOM | 419 | C | ILE | 54 | 42.646 | 70.703 | 13.524 | 1.00 | 2.00 | lite | O |
| ATOM | 420 | O | ILE | 54 | 42.238 | 71.798 | 13.937 | 1.00 | 28.65 | lite | O |
| ATOM | 421 | N | ALA | 55 | 43.063 | 69.677 | 14.275 | 1.00 | 2.00 | lite | O |
| ATOM | 422 | CA | ALA | 55 | 43.294 | 69.766 | 15.690 | 1.00 | 2.00 | lite | O |
| ATOM | 423 | CB | ALA | 55 | 44.344 | 70.843 | 15.967 | 1.00 | 11.47 | lite | O |
| ATOM | 424 | C | ALA | 55 | 42.091 | 70.041 | 16.574 | 1.00 | 2.00 | lite | O |
| ATOM | 425 | O | ALA | 55 | 41.941 | 69.354 | 17.587 | 1.00 | 11.47 | lite | O |
| ATOM | 426 | N | SER | 56 | 41.178 | 70.960 | 16.301 | 1.00 | 2.00 | lite | O |
| ATOM | 427 | CA | SER | 56 | 40.095 | 71.299 | 17.222 | 1.00 | 2.00 | lite | O |
| ATOM | 428 | CB | SER | 56 | 40.365 | 72.755 | 17.581 | 1.00 | 40.53 | lite | O |
| ATOM | 429 | OG | SER | 56 | 40.942 | 73.521 | 16.506 | 1.00 | 40.53 | lite | O |
| ATOM | 430 | C | SER | 56 | 38.684 | 71.055 | 16.650 | 1.00 | 2.00 | lite | O |
| ATOM | 431 | O | SER | 56 | 37.670 | 70.843 | 17.339 | 1.00 | 40.53 | lite | O |
| ATOM | 432 | N | ASN | 57 | 38.599 | 71.054 | 15.326 | 1.00 | 2.00 | lite | O |
| ATOM | 433 | CA | ASN | 57 | 37.323 | 71.006 | 14.653 | 1.00 | 2.00 | lite | O |
| ATOM | 434 | CB | ASN | 57 | 37.421 | 71.443 | 13.233 | 1.00 | 47.28 | lite | O |
| ATOM | 435 | CG | ASN | 57 | 37.695 | 72.907 | 13.324 | 1.00 | 47.28 | lite | O |
| ATOM | 436 | OD1 | ASN | 57 | 38.840 | 73.368 | 13.272 | 1.00 | 47.28 | lite | O |
| ATOM | 437 | ND2 | ASN | 57 | 36.622 | 73.650 | 13.584 | 1.00 | 47.28 | lite | O |
| ATOM | 438 | C | ASN | 57 | 36.685 | 69.688 | 14.622 | 1.00 | 2.00 | lite | O |
| ATOM | 439 | O | ASN | 57 | 37.265 | 68.725 | 14.136 | 1.00 | 47.28 | lite | O |
| ATOM | 440 | N | LEU | 58 | 35.444 | 69.713 | 15.051 | 1.00 | 24.64 | lite | O |
| ATOM | 441 | CA | LEU | 58 | 34.666 | 68.507 | 15.095 | 1.00 | 24.64 | lite | O |
| ATOM | 442 | CB | LEU | 58 | 33.708 | 68.689 | 16.201 | 1.00 | 21.23 | lite | O |
| ATOM | 443 | CG | LEU | 58 | 33.519 | 67.531 | 17.105 | 1.00 | 21.23 | lite | O |
| ATOM | 444 | CD1 | LEU | 58 | 32.773 | 67.885 | 18.388 | 1.00 | 21.23 | lite | O |
| ATOM | 445 | CD2 | LEU | 58 | 32.755 | 66.534 | 16.305 | 1.00 | 21.23 | lite | O |
| ATOM | 446 | C | LEU | 58 | 33.953 | 68.153 | 13.806 | 1.00 | 24.64 | lite | O |
| ATOM | 447 | O | LEU | 58 | 33.280 | 68.993 | 13.199 | 1.00 | 21.23 | lite | O |
| ATOM | 448 | N | GLU | 59 | 34.097 | 66.894 | 13.392 | 1.00 | 43.23 | lite | O |
| ATOM | 449 | CA | GLU | 59 | 33.406 | 66.399 | 12.214 | 1.00 | 43.23 | lite | O |
| ATOM | 450 | CB | GLU | 59 | 33.898 | 65.021 | 11.737 | 1.00 | 69.91 | lite | O |
| ATOM | 451 | CG | GLU | 59 | 33.265 | 64.584 | 10.406 | 1.00 | 69.91 | lite | O |
| ATOM | 452 | CD | GLU | 59 | 33.583 | 65.466 | 9.189 | 1.00 | 69.91 | lite | O |
| ATOM | 453 | OE1 | GLU | 59 | 33.109 | 66.602 | 9.059 | 1.00 | 69.91 | lite | O |
| ATOM | 454 | OE2 | GLU | 59 | 34.317 | 64.987 | 8.334 | 1.00 | 69.91 | lite | O |
| ATOM | 455 | C | GLU | 59 | 31.934 | 66.240 | 12.545 | 1.00 | 43.23 | lite | O |
| ATOM | 456 | O | GLU | 59 | 31.505 | 65.896 | 13.650 | 1.00 | 69.91 | lite | O |
| ATOM | 457 | N | SER | 60 | 31.143 | 66.539 | 11.538 | 1.00 | 64.17 | lite | O |
| ATOM | 458 | CA | SER | 60 | 29.726 | 66.343 | 11.620 | 1.00 | 64.17 | lite | O |
| ATOM | 459 | CB | SER | 60 | 29.133 | 66.503 | 10.251 | 1.00 | 80.49 | lite | O |
| ATOM | 460 | OG | SER | 60 | 27.721 | 66.323 | 10.306 | 1.00 | 80.49 | lite | O |
| ATOM | 461 | C | SER | 60 | 29.380 | 64.970 | 12.159 | 1.00 | 64.17 | lite | O |
| ATOM | 462 | O | SER | 60 | 30.044 | 63.960 | 11.947 | 1.00 | 80.49 | lite | O |
| ATOM | 463 | N | GLY | 61 | 28.356 | 65.022 | 12.967 | 1.00 | 53.33 | lite | O |
| ATOM | 464 | CA | GLY | 61 | 27.857 | 63.823 | 13.548 | 1.00 | 53.33 | lite | O |
| ATOM | 465 | C | GLY | 61 | 28.625 | 63.483 | 14.804 | 1.00 | 53.33 | lite | O |
| ATOM | 466 | O | GLY | 61 | 27.960 | 63.097 | 15.772 | 1.00 | 51.50 | lite | O |
| ATOM | 467 | N | VAL | 62 | 29.957 | 63.618 | 14.879 | 1.00 | 2.00 | lite | O |

| ATOM | 468 | CA | VAL | 62 | 30.644 | 63.206 | 16.091 | 1.00 | 2.00 | lite | O |
|------|-----|-----|-----|----|--------|--------|--------|------|-------|------|---|
| ATOM | 469 | CB | VAL | 62 | 32.166 | 63.385 | 15.891 | 1.00 | 23.21 | lite | O |
| ATOM | 470 | CG1 | VAL | 62 | 32.850 | 62.868 | 17.155 | 1.00 | 23.21 | lite | O |
| ATOM | 471 | CG2 | VAL | 62 | 32.674 | 62.671 | 14.650 | 1.00 | 23.21 | lite | O |
| ATOM | 472 | C | VAL | 62 | 30.094 | 64.046 | 17.276 | 1.00 | 2.00 | lite | O |
| ATOM | 473 | O | VAL | 62 | 29.870 | 65.262 | 17.199 | 1.00 | 23.21 | lite | O |
| ATOM | 474 | N | PRO | 63 | 29.682 | 63.374 | 18.357 | 1.00 | 22.79 | ₋ite | O |
| ATOM | 475 | CD | PRO | 63 | 29.570 | 61.918 | 18.434 | 1.00 | 50.44 | lite | O |
| ATOM | 476 | CA | PRO | 63 | 28.953 | 63.993 | 19.459 | 1.00 | 22.79 | lite | O |
| ATOM | 477 | CB | PRO | 63 | 28.434 | 62.839 | 20.279 | 1.00 | 50.44 | lite | O |
| ATOM | 478 | CG | PRO | 63 | 28.291 | 61.741 | 19.248 | 1.00 | 50.44 | lite | O |
| ATOM | 479 | C | PRO | 63 | 29.778 | 64.943 | 20.289 | 1.00 | 22.79 | lite | O |
| ATOM | 480 | O | PRO | 63 | 30.979 | 64.780 | 20.437 | 1.00 | 50.44 | lite | O |
| ATOM | 481 | N | ALA | 64 | 29.086 | 65.836 | 20.979 | 1.00 | 51.93 | lite | O |
| ATOM | 482 | CA | ALA | 64 | 29.613 | 66.864 | 21.891 | 1.00 | 51.93 | lite | O |
| ATOM | 483 | CB | ALA | 64 | 28.482 | 67.288 | 22.815 | 1.00 | 39.38 | lite | O |
| ATOM | 484 | C | ALA | 64 | 30.827 | 66.641 | 22.791 | 1.00 | 51.93 | lite | O |
| ATOM | 485 | O | ALA | 64 | 31.610 | 67.519 | 23.202 | 1.00 | 39.38 | lite | O |
| ATOM | 486 | N | ARG | 65 | 30.775 | 65.368 | 23.143 | 1.00 | 29.94 | lite | O |
| ATOM | 487 | CA | ARG | 65 | 31.702 | 64.830 | 24.066 | 1.00 | 29.94 | lite | O |
| ATOM | 488 | CB | ARG | 65 | 31.039 | 63.699 | 24.740 | 1.00 | 23.72 | lite | O |
| ATOM | 489 | CG | ARG | 65 | 30.521 | 62.714 | 23.758 | 1.00 | 23.72 | lite | O |
| ATOM | 490 | CD | ARG | 65 | 29.943 | 61.632 | 24.617 | 1.00 | 23.72 | lite | O |
| ATOM | 491 | NE | ARG | 65 | 29.320 | 60.693 | 23.735 | 1.00 | 23.72 | lite | O |
| ATOM | 492 | CZ | ARG | 65 | 29.984 | 59.640 | 23.295 | 1.00 | 23.72 | lite | O |
| ATOM | 493 | NH1 | ARG | 65 | 31.220 | 59.391 | 23.642 | 1.00 | 23.72 | lite | O |
| ATOM | 494 | NH2 | ARG | 65 | 29.402 | 58.828 | 22.451 | 1.00 | 23.72 | lite | O |
| ATOM | 495 | C | ARG | 65 | 33.027 | 64.403 | 23.495 | 1.00 | 29.94 | lite | O |
| ATOM | 496 | O | ARG | 65 | 33.686 | 63.514 | 24.086 | 1.00 | 23.72 | lite | O |
| ATOM | 497 | N | PHE | 66 | 33.403 | 64.990 | 22.355 | 1.00 | 2.00 | lite | O |
| ATOM | 498 | CA | PHE | 66 | 34.738 | 64.747 | 21.873 | 1.00 | 2.00 | lite | O |
| ATOM | 499 | CB | PHE | 66 | 34.631 | 64.133 | 20.502 | 1.00 | 15.70 | lite | O |
| ATOM | 500 | CG | PHE | 66 | 34.375 | 62.654 | 20.669 | 1.00 | 15.70 | lite | O |
| ATOM | 501 | CD1 | PHE | 66 | 33.129 | 62.151 | 20.464 | 1.00 | 15.70 | lite | O |
| ATOM | 502 | CD2 | PHE | 66 | 35.406 | 61.816 | 21.026 | 1.00 | 15.70 | lite | O |
| ATOM | 503 | CE1 | PHE | 66 | 32.940 | 60.802 | 20.627 | 1.00 | 15.70 | lite | O |
| ATOM | 504 | CE2 | PHE | 66 | 35.185 | 60.460 | 21.181 | 1.00 | 15.70 | lite | O |
| ATOM | 505 | CZ | PHE | 66 | 33.949 | 59.936 | 20.979 | 1.00 | 15.70 | lite | O |
| ATOM | 506 | C | PHE | 66 | 35.486 | 66.056 | 21.867 | 1.00 | 2.00 | lite | O |
| ATOM | 507 | O | PHE | 66 | 35.019 | 66.983 | 21.210 | 1.00 | 15.70 | lite | O |
| ATOM | 508 | N | SER | 67 | 36.598 | 66.241 | 22.548 | 1.00 | 2.00 | lite | O |
| ATOM | 509 | CA | SER | 67 | 37.232 | 67.529 | 22.426 | 1.00 | 2.00 | lite | O |
| ATOM | 510 | CB | SER | 67 | 37.095 | 68.210 | 23.742 | 1.00 | 46.68 | lite | O |
| ATOM | 511 | OG | SER | 67 | 35.698 | 68.278 | 23.933 | 1.00 | 46.68 | lite | O |
| ATOM | 512 | C | SER | 67 | 38.688 | 67.528 | 21.952 | 1.00 | 2.00 | lite | O |
| ATOM | 513 | O | SER | 67 | 39.610 | 66.871 | 22.474 | 1.00 | 46.68 | lite | O |
| ATOM | 514 | N | GLY | 68 | 38.818 | 68.251 | 20.849 | 1.00 | 14.71 | lite | O |
| ATOM | 515 | CA | GLY | 68 | 40.093 | 68.349 | 20.233 | 1.00 | 14.71 | lite | O |
| ATOM | 516 | C | GLY | 68 | 40.785 | 69.560 | 20.762 | 1.00 | 14.71 | lite | O |
| ATOM | 517 | O | GLY | 68 | 40.251 | 70.650 | 20.645 | 1.00 | 54.23 | lite | O |
| ATOM | 518 | N | SER | 69 | 41.964 | 69.414 | 21.319 | 1.00 | 2.00 | lite | O |
| ATOM | 519 | CA | SER | 69 | 42.765 | 70.527 | 21.777 | 1.00 | 2.00 | lite | O |
| ATOM | 520 | CB | SER | 69 | 42.640 | 70.566 | 23.274 | 1.00 | 66.45 | lite | O |
| ATOM | 521 | OG | SER | 69 | 43.110 | 69.343 | 23.862 | 1.00 | 66.45 | lite | O |
| ATOM | 522 | C | SER | 69 | 44.235 | 70.387 | 21.373 | 1.00 | 2.00 | lite | O |
| ATOM | 523 | O | SER | 69 | 44.720 | 69.312 | 21.014 | 1.00 | 66.45 | lite | O |
| ATOM | 524 | N | GLY | 70 | 44.964 | 71.459 | 21.639 | 1.00 | 2.00 | lite | O |
| ATOM | 525 | CA | GLY | 70 | 46.398 | 71.525 | 21.519 | 1.00 | 2.00 | lite | O |
| ATOM | 526 | C | GLY | 70 | 46.822 | 72.185 | 20.226 | 1.00 | 2.00 | lite | O |
| ATOM | 527 | O | GLY | 70 | 45.972 | 72.485 | 19.366 | 1.00 | 43.67 | lite | O |
| ATOM | 528 | N | SER | 71 | 48.163 | 72.381 | 20.206 | 1.00 | 38.46 | lite | O |
| ATOM | 529 | CA | SER | 71 | 48.956 | 72.925 | 19.120 | 1.00 | 38.46 | lite | O |
| ATOM | 530 | CB | SER | 71 | 48.667 | 74.389 | 19.001 | 1.00 | 46.07 | lite | O |
| ATOM | 531 | OG | SER | 71 | 47.454 | 74.454 | 18.238 | 1.00 | 46.07 | lite | O |
| ATOM | 532 | C | SER | 71 | 50.471 | 72.712 | 19.171 | 1.00 | 38.46 | lite | O |
| ATOM | 533 | O | SER | 71 | 51.093 | 72.309 | 20.168 | 1.00 | 46.07 | lite | O |
| ATOM | 534 | N | ARG | 72 | 51.037 | 72.963 | 17.971 | 1.00 | 29.86 | lite | O |

| ATOM | 535 | CA | ARG | 72 | 52.444 | 72.777 | 17.589 | 1.00 | 29.86 | lite | O |
|------|-----|----|-----|----|--------|--------|--------|------|-------|------|---|
| ATOM | 536 | CB | ARG | 72 | 53.374 | 73.636 | 18.477 | 1.00 | 90.52 | lite | O |
| ATOM | 537 | CG | ARG | 72 | 53.936 | 74.860 | 17.753 | 1.00 | 90.52 | lite | O |
| ATOM | 538 | CD | ARG | 72 | 55.111 | 75.453 | 18.539 | 1.00 | 90.52 | lite | O |
| ATOM | 539 | NE | ARG | 72 | 55.961 | 76.349 | 17.744 | 1.00 | 90.52 | lite | O |
| ATOM | 540 | CZ | ARG | 72 | 57.218 | 76.035 | 17.328 | 1.00 | 90.52 | lite | O |
| ATOM | 541 | NH1 | ARG | 72 | 57.814 | 74.864 | 17.596 | 1.00 | 90.52 | lite | O |
| ATOM | 542 | NH2 | ARG | 72 | 57.939 | 76.929 | 16.637 | 1.00 | 90.52 | lite | O |
| ATOM | 543 | C | ARG | 72 | 52.913 | 71.321 | 17.621 | 1.00 | 29.86 | lite | O |
| ATOM | 544 | O | ARG | 72 | 53.019 | 70.700 | 16.561 | 1.00 | 90.52 | lite | O |
| ATOM | 545 | N | THR | 73 | 53.116 | 70.798 | 18.814 | 1.00 | 16.10 | lite | O |
| ATOM | 546 | CA | THR | 73 | 53.644 | 69.464 | 19.044 | 1.00 | 16.10 | lite | O |
| ATOM | 547 | CB | THR | 73 | 55.063 | 69.544 | 19.581 | 1.00 | 30.32 | lite | O |
| ATOM | 548 | OG1 | THR | 73 | 55.107 | 70.702 | 20.419 | 1.00 | 30.32 | lite | O |
| ATOM | 549 | CG2 | THR | 73 | 56.096 | 69.623 | 18.503 | 1.00 | 30.32 | lite | O |
| ATOM | 550 | C | THR | 73 | 52.818 | 68.685 | 20.073 | 1.00 | 16.10 | lite | O |
| ATOM | 551 | O | THR | 73 | 53.059 | 67.496 | 20.287 | 1.00 | 30.32 | lite | O |
| ATOM | 552 | N | ASP | 74 | 51.843 | 69.360 | 20.719 | 1.00 | 18.56 | lite | O |
| ATOM | 553 | CA | ASP | 74 | 51.100 | 68.837 | 21.842 | 1.00 | 18.56 | lite | O |
| ATOM | 554 | CB | ASP | 74 | 51.381 | 69.666 | 23.023 | 1.00 | 35.28 | lite | O |
| ATOM | 555 | CG | ASP | 74 | 51.277 | 68.771 | 24.221 | 1.00 | 35.28 | lite | O |
| ATOM | 556 | OD1 | ASP | 74 | 50.364 | 68.920 | 25.050 | 1.00 | 35.28 | lite | O |
| ATOM | 557 | OD2 | ASP | 74 | 52.152 | 67.912 | 24.277 | 1.00 | 35.28 | lite | O |
| ATOM | 558 | C | ASP | 74 | 49.621 | 68.814 | 21.645 | 1.00 | 18.56 | lite | O |
| ATOM | 559 | O | ASP | 74 | 49.025 | 69.877 | 21.607 | 1.00 | 35.28 | lite | O |
| ATOM | 560 | N | PHE | 75 | 49.008 | 67.649 | 21.565 | 1.00 | 18.58 | lite | O |
| ATOM | 561 | CA | PHE | 75 | 47.617 | 67.543 | 21.186 | 1.00 | 18.58 | lite | O |
| ATOM | 562 | CB | PHE | 75 | 47.533 | 67.085 | 19.753 | 1.00 | 16.63 | lite | O |
| ATOM | 563 | CG | PHE | 75 | 48.153 | 68.047 | 18.763 | 1.00 | 16.63 | lite | O |
| ATOM | 564 | CD1 | PHE | 75 | 49.514 | 68.015 | 18.502 | 1.00 | 16.63 | lite | O |
| ATOM | 565 | CD2 | PHE | 75 | 47.375 | 68.983 | 18.134 | 1.00 | 16.63 | lite | O |
| ATOM | 566 | CE1 | PHE | 75 | 50.104 | 68.914 | 17.624 | 1.00 | 16.63 | lite | O |
| ATOM | 567 | CE2 | PHE | 75 | 47.976 | 69.876 | 17.259 | 1.00 | 16.63 | lite | O |
| ATOM | 568 | CZ | PHE | 75 | 49.330 | 69.852 | 16.996 | 1.00 | 16.63 | lite | O |
| ATOM | 569 | C | PHE | 75 | 46.819 | 66.582 | 22.042 | 1.00 | 18.58 | lite | O |
| ATOM | 570 | O | PHE | 75 | 47.370 | 65.509 | 22.299 | 1.00 | 16.63 | lite | O |
| ATOM | 571 | N | THR | 76 | 45.545 | 66.871 | 22.402 | 1.00 | 2.00 | lite | O |
| ATOM | 572 | CA | THR | 76 | 44.779 | 66.060 | 23.351 | 1.00 | 2.00 | lite | O |
| ATOM | 573 | CB | THR | 76 | 44.810 | 66.830 | 24.683 | 1.00 | 27.98 | lite | O |
| ATOM | 574 | OG1 | THR | 76 | 46.168 | 67.054 | 25.061 | 1.00 | 27.98 | lite | O |
| ATOM | 575 | CG2 | THR | 76 | 44.109 | 66.080 | 25.757 | 1.00 | 27.98 | lite | O |
| ATOM | 576 | C | THR | 76 | 43.353 | 65.730 | 22.940 | 1.00 | 2.00 | lite | O |
| ATOM | 577 | O | THR | 76 | 42.569 | 66.635 | 22.683 | 1.00 | 27.98 | lite | O |
| ATOM | 578 | N | LEU | 77 | 42.964 | 64.481 | 22.781 | 1.00 | 2.00 | lite | O |
| ATOM | 579 | CA | LEU | 77 | 41.566 | 64.138 | 22.502 | 1.00 | 2.00 | lite | O |
| ATOM | 580 | CB | LEU | 77 | 41.373 | 62.894 | 21.671 | 1.00 | 18.67 | lite | O |
| ATOM | 581 | CG | LEU | 77 | 39.990 | 62.261 | 21.513 | 1.00 | 18.67 | lite | O |
| ATOM | 582 | CD1 | LEU | 77 | 39.169 | 62.877 | 20.383 | 1.00 | 18.67 | lite | O |
| ATOM | 583 | CD2 | LEU | 77 | 40.193 | 60.839 | 21.044 | 1.00 | 18.67 | lite | O |
| ATOM | 584 | C | LEU | 77 | 41.120 | 63.791 | 23.884 | 1.00 | 2.00 | lite | O |
| ATOM | 585 | O | LEU | 77 | 41.835 | 63.122 | 24.647 | 1.00 | 18.67 | lite | O |
| ATOM | 586 | N | THR | 78 | 39.892 | 64.193 | 24.140 | 1.00 | 17.32 | lite | O |
| ATOM | 587 | CA | THR | 78 | 39.297 | 64.074 | 25.452 | 1.00 | 17.32 | lite | O |
| ATOM | 588 | CB | THR | 78 | 39.329 | 65.487 | 26.081 | 1.00 | 51.42 | lite | O |
| ATOM | 589 | OG1 | THR | 78 | 40.145 | 66.441 | 25.363 | 1.00 | 51.42 | lite | O |
| ATOM | 590 | CG2 | THR | 78 | 39.959 | 65.337 | 27.424 | 1.00 | 51.42 | lite | O |
| ATOM | 591 | C | THR | 78 | 37.886 | 63.543 | 25.195 | 1.00 | 17.32 | lite | O |
| ATOM | 592 | O | THR | 78 | 37.142 | 64.060 | 24.344 | 1.00 | 51.42 | lite | O |
| ATOM | 593 | N | ILE | 79 | 37.444 | 62.472 | 25.798 | 1.00 | 2.00 | lite | O |
| ATOM | 594 | CA | ILE | 79 | 36.115 | 61.988 | 25.520 | 1.00 | 2.00 | lite | O |
| ATOM | 595 | CB | ILE | 79 | 36.188 | 60.582 | 25.053 | 1.00 | 19.20 | lite | O |
| ATOM | 596 | CG2 | ILE | 79 | 34.755 | 60.159 | 24.831 | 1.00 | 19.20 | lite | O |
| ATOM | 597 | CG1 | ILE | 79 | 37.116 | 60.424 | 23.891 | 1.00 | 19.20 | lite | O |
| ATOM | 598 | CD1 | ILE | 79 | 37.510 | 58.955 | 23.769 | 1.00 | 19.20 | lite | O |
| ATOM | 599 | C | ILE | 79 | 35.583 | 62.019 | 26.934 | 1.00 | 2.00 | lite | O |
| ATOM | 600 | O | ILE | 79 | 36.210 | 61.379 | 27.822 | 1.00 | 19.20 | lite | O |
| ATOM | 601 | N | ASP | 80 | 34.479 | 62.735 | 27.191 | 1.00 | 2.00 | lite | O |

| ATOM | 602 | CA | ASP | 80 | 33.894 | 62.803 | 28.537 | 1.00 | 2.00 | lite | 0 |
|------|-----|-----|-----|----|--------|--------|--------|------|-------|------|---|
| ATOM | 603 | CB | ASP | 80 | 34.622 | 63.796 | 29.396 | 1.00 | 51.46 | lite | 0 |
| ATOM | 604 | CG | ASP | 80 | 33.897 | 64.125 | 30.677 | 1.00 | 51.46 | lite | 0 |
| ATOM | 605 | OD1 | ASP | 80 | 33.534 | 65.283 | 30.823 | 1.00 | 51.46 | lite | 0 |
| ATOM | 606 | OD2 | ASP | 80 | 33.666 | 63.238 | 31.497 | 1.00 | 51.46 | lite | 0 |
| ATOM | 607 | C | ASP | 80 | 32.471 | 63.271 | 28.417 | 1.00 | 2.00 | lite | 0 |
| ATOM | 608 | O | ASP | 80 | 32.259 | 64.385 | 27.945 | 1.00 | 51.46 | lite | 0 |
| ATOM | 609 | N | CPR | 81 | 31.447 | 62.557 | 28.817 | 1.00 | 2.00 | lite | 0 |
| ATOM | 610 | CD | CPR | 81 | 30.059 | 62.859 | 28.492 | 1.00 | 10.14 | lite | 0 |
| ATOM | 611 | CA | CPR | 81 | 31.505 | 61.263 | 29.410 | 1.00 | 2.00 | lite | 0 |
| ATOM | 612 | CB | CPR | 81 | 30.183 | 61.143 | 30.117 | 1.00 | 10.14 | lite | 0 |
| ATOM | 613 | CG | CPR | 81 | 29.240 | 61.711 | 29.115 | 1.00 | 10.14 | lite | 0 |
| ATOM | 614 | C | CPR | 81 | 31.728 | 60.188 | 28.379 | 1.00 | 2.00 | lite | 0 |
| ATOM | 615 | O | CPR | 81 | 31.154 | 60.124 | 27.291 | 1.00 | 10.14 | lite | 0 |
| ATOM | 616 | N | VAL | 82 | 32.588 | 59.303 | 28.744 | 1.00 | 2.00 | lite | 0 |
| ATOM | 617 | CA | VAL | 82 | 32.769 | 58.132 | 27.930 | 1.00 | 2.00 | lite | 0 |
| ATOM | 618 | CB | VAL | 82 | 33.903 | 57.301 | 28.518 | 1.00 | 15.97 | lite | 0 |
| ATOM | 619 | CG1 | VAL | 82 | 34.101 | 55.933 | 27.899 | 1.00 | 15.97 | lite | 0 |
| ATOM | 620 | CG2 | VAL | 82 | 35.129 | 58.174 | 28.287 | 1.00 | 15.97 | lite | 0 |
| ATOM | 621 | C | VAL | 82 | 31.459 | 57.370 | 27.984 | 1.00 | 2.00 | lite | 0 |
| ATOM | 622 | O | VAL | 82 | 30.763 | 57.481 | 28.996 | 1.00 | 15.97 | lite | 0 |
| ATOM | 623 | N | GLU | 83 | 31.071 | 56.707 | 26.896 | 1.00 | 2.00 | lite | 0 |
| ATOM | 624 | CA | GLU | 83 | 30.031 | 55.710 | 26.914 | 1.00 | 2.00 | lite | 0 |
| ATOM | 625 | CB | GLU | 83 | 28.646 | 56.293 | 26.641 | 1.00 | 35.40 | lite | 0 |
| ATOM | 626 | CG | GLU | 83 | 28.555 | 57.314 | 25.561 | 1.00 | 35.40 | lite | 0 |
| ATOM | 627 | CD | GLU | 83 | 27.265 | 58.147 | 25.626 | 1.00 | 35.40 | lite | 0 |
| ATOM | 628 | OE1 | GLU | 83 | 26.615 | 58.311 | 24.582 | 1.00 | 35.40 | lite | 0 |
| ATOM | 629 | OE2 | GLU | 83 | 26.906 | 58.651 | 26.699 | 1.00 | 35.40 | lite | 0 |
| ATOM | 630 | C | GLU | 83 | 30.336 | 54.639 | 25.899 | 1.00 | 2.00 | lite | 0 |
| ATOM | 631 | O | GLU | 83 | 31.279 | 54.680 | 25.117 | 1.00 | 35.40 | lite | 0 |
| ATOM | 632 | N | ALA | 84 | 29.476 | 53.648 | 25.980 | 1.00 | 2.00 | lite | 0 |
| ATOM | 633 | CA | ALA | 84 | 29.524 | 52.377 | 25.288 | 1.00 | 2.00 | lite | 0 |
| ATOM | 634 | CB | ALA | 84 | 28.076 | 51.945 | 25.078 | 1.00 | 55.68 | lite | 0 |
| ATOM | 635 | C | ALA | 84 | 30.292 | 52.172 | 23.996 | 1.00 | 2.00 | lite | 0 |
| ATOM | 636 | O | ALA | 84 | 31.233 | 51.388 | 23.831 | 1.00 | 55.68 | lite | 0 |
| ATOM | 637 | N | ASP | 85 | 29.815 | 53.003 | 23.119 | 1.00 | 2.00 | lite | 0 |
| ATOM | 638 | CA | ASP | 85 | 30.266 | 53.105 | 21.761 | 1.00 | 2.00 | lite | 0 |
| ATOM | 639 | CB | ASP | 85 | 29.379 | 54.194 | 21.188 | 1.00 | 52.80 | lite | 0 |
| ATOM | 640 | CG | ASP | 85 | 29.584 | 54.479 | 19.734 | 1.00 | 52.80 | lite | 0 |
| ATOM | 641 | OD1 | ASP | 85 | 28.738 | 54.047 | 18.946 | 1.00 | 52.80 | lite | 0 |
| ATOM | 642 | OD2 | ASP | 85 | 30.592 | 55.132 | 19.427 | 1.00 | 52.80 | lite | 0 |
| ATOM | 643 | C | ASP | 85 | 31.754 | 53.385 | 21.638 | 1.00 | 2.00 | lite | 0 |
| ATOM | 644 | O | ASP | 85 | 32.407 | 52.854 | 20.753 | 1.00 | 52.80 | lite | 0 |
| ATOM | 645 | N | ASP | 86 | 32.333 | 54.137 | 22.555 | 1.00 | 2.00 | lite | 0 |
| ATOM | 646 | CA | ASP | 86 | 33.702 | 54.547 | 22.420 | 1.00 | 2.00 | lite | 0 |
| ATOM | 647 | CB | ASP | 86 | 33.941 | 55.636 | 23.362 | 1.00 | 2.00 | lite | 0 |
| ATOM | 648 | CG | ASP | 86 | 32.839 | 56.644 | 23.263 | 1.00 | 2.00 | lite | 0 |
| ATOM | 649 | OD1 | ASP | 86 | 32.406 | 57.028 | 24.321 | 1.00 | 2.00 | lite | 0 |
| ATOM | 650 | OD2 | ASP | 86 | 32.362 | 56.997 | 22.176 | 1.00 | 2.00 | lite | 0 |
| ATOM | 651 | C | ASP | 86 | 34.744 | 53.488 | 22.610 | 1.00 | 2.00 | lite | 0 |
| ATOM | 652 | O | ASP | 86 | 35.941 | 53.773 | 22.492 | 1.00 | 2.00 | lite | 0 |
| ATOM | 653 | N | ALA | 87 | 34.299 | 52.274 | 22.930 | 1.00 | 2.00 | lite | 0 |
| ATOM | 654 | CA | ALA | 87 | 35.154 | 51.106 | 22.970 | 1.00 | 27.46 | lite | 0 |
| ATOM | 655 | CB | ALA | 87 | 34.319 | 49.905 | 23.299 | 1.00 | 2.00 | lite | 0 |
| ATOM | 656 | C | ALA | 87 | 35.712 | 50.976 | 21.545 | 1.00 | 27.46 | lite | 0 |
| ATOM | 657 | O | ALA | 87 | 35.038 | 50.456 | 20.645 | 1.00 | 27.46 | lite | 0 |
| ATOM | 658 | N | ALA | 88 | 36.928 | 51.510 | 21.329 | 1.00 | 2.00 | lite | 0 |
| ATOM | 659 | CA | ALA | 88 | 37.562 | 51.558 | 20.028 | 1.00 | 2.00 | lite | 0 |
| ATOM | 660 | CB | ALA | 88 | 36.831 | 52.580 | 19.176 | 1.00 | 13.15 | lite | 0 |
| ATOM | 661 | C | ALA | 88 | 39.054 | 51.943 | 20.064 | 1.00 | 2.00 | lite | 0 |
| ATOM | 662 | O | ALA | 88 | 39.567 | 52.324 | 21.120 | 1.00 | 13.15 | lite | 0 |
| ATOM | 663 | N | THR | 89 | 39.790 | 51.853 | 18.943 | 1.00 | 2.00 | lite | 0 |
| ATOM | 664 | CA | THR | 89 | 41.109 | 52.416 | 18.938 | 1.00 | 2.00 | lite | 0 |
| ATOM | 665 | CB | THR | 89 | 42.049 | 51.517 | 18.176 | 1.00 | 15.69 | lite | 0 |
| ATOM | 666 | OG1 | THR | 89 | 42.203 | 50.317 | 18.891 | 1.00 | 15.69 | lite | 0 |
| ATOM | 667 | CG2 | THR | 89 | 43.451 | 51.992 | 18.232 | 1.00 | 15.69 | lite | 0 |
| ATOM | 668 | C | THR | 89 | 41.048 | 53.798 | 18.318 | 1.00 | 2.00 | lite | 0 |

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| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 669 | O | THR | 89 | 40.210 | 54.063 | 17.464 | 1.00 | 15.69 | lite | O |
| ATOM | 670 | N | TYR | 90 | 41.870 | 54.702 | 18.825 | 1.00 | 2.00 | lite | O |
| ATOM | 671 | CA | TYR | 90 | 41.910 | 56.049 | 18.353 | 1.00 | 2.00 | lite | O |
| ATOM | 672 | CB | TYR | 90 | 41.622 | 56.962 | 19.487 | 1.00 | 2.00 | lite | O |
| ATOM | 673 | CG | TYR | 90 | 40.228 | 56.798 | 20.037 | 1.00 | 2.00 | lite | O |
| ATOM | 674 | CD1 | TYR | 90 | 39.236 | 57.657 | 19.604 | 1.00 | 2.00 | lite | O |
| ATOM | 675 | CE1 | TYR | 90 | 37.955 | 57.455 | 20.066 | 1.00 | 2.00 | lite | O |
| ATOM | 676 | CD2 | TYR | 90 | 39.976 | 55.758 | 20.909 | 1.00 | 2.00 | lite | O |
| ATOM | 677 | CE2 | TYR | 90 | 38.701 | 55.552 | 21.362 | 1.00 | 2.00 | lite | O |
| ATOM | 678 | CZ | TYR | 90 | 37.708 | 56.402 | 20.931 | 1.00 | 2.00 | lite | O |
| ATOM | 679 | OH | TYR | 90 | 36.426 | 56.187 | 21.352 | 1.00 | 2.00 | lite | O |
| ATOM | 680 | C | TYR | 90 | 43.296 | 56.335 | 17.812 | 1.00 | 2.00 | lite | O |
| ATOM | 681 | O | TYR | 90 | 44.291 | 55.932 | 18.468 | 1.00 | 2.00 | lite | O |
| ATOM | 682 | N | TYR | 91 | 43.411 | 56.994 | 16.646 | 1.00 | 7.40 | lite | O |
| ATOM | 683 | CA | TYR | 91 | 44.719 | 57.263 | 16.077 | 1.00 | 7.40 | lite | O |
| ATOM | 684 | CB | TYR | 91 | 44.918 | 56.700 | 14.721 | 1.00 | 2.00 | lite | O |
| ATOM | 685 | CG | TYR | 91 | 44.926 | 55.207 | 14.701 | 1.00 | 2.00 | lite | O |
| ATOM | 686 | CD1 | TYR | 91 | 43.733 | 54.579 | 14.520 | 1.00 | 2.00 | lite | O |
| ATOM | 687 | CE1 | TYR | 91 | 43.725 | 53.218 | 14.587 | 1.00 | 2.00 | lite | O |
| ATOM | 688 | CD2 | TYR | 91 | 46.110 | 54.526 | 14.938 | 1.00 | 2.00 | lite | O |
| ATOM | 689 | CE2 | TYR | 91 | 46.103 | 53.159 | 15.002 | 1.00 | 2.00 | lite | O |
| ATOM | 690 | CZ | TYR | 91 | 44.891 | 52.548 | 14.830 | 1.00 | 2.00 | lite | O |
| ATOM | 691 | OH | TYR | 91 | 44.825 | 51.194 | 14.892 | 1.00 | 2.00 | lite | O |
| ATOM | 692 | C | TYR | 91 | 44.881 | 58.721 | 15.854 | 1.00 | 7.40 | lite | O |
| ATOM | 693 | O | TYR | 91 | 43.883 | 59.347 | 15.539 | 1.00 | 2.00 | lite | O |
| ATOM | 694 | N | CYS | 92 | 46.014 | 59.331 | 15.975 | 1.00 | 2.00 | lite | O |
| ATOM | 695 | CA | CYS | 92 | 46.074 | 60.682 | 15.534 | 1.00 | 2.00 | lite | O |
| ATOM | 696 | C | CYS | 92 | 46.976 | 60.670 | 14.317 | 1.00 | 2.00 | lite | O |
| ATOM | 697 | O | CYS | 92 | 47.744 | 59.737 | 14.098 | 1.00 | 11.14 | lite | O |
| ATOM | 698 | CB | CYS | 92 | 46.619 | 61.533 | 16.629 | 1.00 | 11.14 | lite | O |
| ATOM | 699 | SG | CYS | 92 | 48.224 | 60.843 | 16.937 | 1.00 | 11.14 | lite | O |
| ATOM | 700 | N | GLN | 93 | 46.930 | 61.648 | 13.448 | 1.00 | 2.00 | lite | O |
| ATOM | 701 | CA | GLN | 93 | 47.672 | 61.568 | 12.216 | 1.00 | 2.00 | lite | O |
| ATOM | 702 | CB | GLN | 93 | 46.770 | 61.169 | 11.071 | 1.00 | 2.00 | lite | O |
| ATOM | 703 | CG | GLN | 93 | 47.352 | 61.422 | 9.663 | 1.00 | 2.00 | lite | O |
| ATOM | 704 | CD | GLN | 93 | 46.264 | 61.380 | 8.627 | 1.00 | 2.00 | lite | O |
| ATOM | 705 | OE1 | GLN | 93 | 45.116 | 61.780 | 8.893 | 1.00 | 2.00 | lite | O |
| ATOM | 706 | NE2 | GLN | 93 | 46.572 | 60.886 | 7.431 | 1.00 | 2.00 | lite | O |
| ATOM | 707 | C | GLN | 93 | 48.111 | 62.965 | 11.983 | 1.00 | 2.00 | lite | O |
| ATOM | 708 | O | GLN | 93 | 47.398 | 63.875 | 12.380 | 1.00 | 2.00 | lite | O |
| ATOM | 709 | N | GLN | 94 | 49.244 | 63.199 | 11.386 | 1.00 | 2.00 | lite | O |
| ATOM | 710 | CA | GLN | 94 | 49.563 | 64.533 | 10.972 | 1.00 | 2.00 | lite | O |
| ATOM | 711 | CB | GLN | 94 | 50.955 | 64.926 | 11.465 | 1.00 | 21.29 | lite | O |
| ATOM | 712 | CG | GLN | 94 | 52.233 | 64.237 | 11.039 | 1.00 | 21.29 | lite | O |
| ATOM | 713 | CD | GLN | 94 | 52.631 | 64.553 | 9.615 | 1.00 | 21.29 | lite | O |
| ATOM | 714 | OE1 | GLN | 94 | 52.478 | 65.691 | 9.181 | 1.00 | 21.29 | lite | O |
| ATOM | 715 | NE2 | GLN | 94 | 53.119 | 63.655 | 8.779 | 1.00 | 21.29 | lite | O |
| ATOM | 716 | C | GLN | 94 | 49.525 | 64.446 | 9.477 | 1.00 | 2.00 | lite | O |
| ATOM | 717 | O | GLN | 94 | 49.728 | 63.373 | 8.897 | 1.00 | 21.29 | lite | O |
| ATOM | 718 | N | ASN | 95 | 49.348 | 65.567 | 8.825 | 1.00 | 2.00 | lite | O |
| ATOM | 719 | CA | ASN | 95 | 49.385 | 65.534 | 7.385 | 1.00 | 2.00 | lite | O |
| ATOM | 720 | CB | ASN | 95 | 47.984 | 65.161 | 6.871 | 1.00 | 14.78 | lite | O |
| ATOM | 721 | CG | ASN | 95 | 47.851 | 64.896 | 5.393 | 1.00 | 14.78 | lite | O |
| ATOM | 722 | OD1 | ASN | 95 | 48.797 | 64.849 | 4.634 | 1.00 | 14.78 | lite | O |
| ATOM | 723 | ND2 | ASN | 95 | 46.686 | 64.584 | 4.864 | 1.00 | 14.78 | lite | O |
| ATOM | 724 | C | ASN | 95 | 49.825 | 66.937 | 7.069 | 1.00 | 2.00 | lite | O |
| ATOM | 725 | O | ASN | 95 | 49.178 | 67.656 | 6.350 | 1.00 | 14.78 | lite | O |
| ATOM | 726 | N | ASN | 96 | 50.892 | 67.444 | 7.654 | 1.00 | 2.00 | lite | O |
| ATOM | 727 | CA | ASN | 96 | 51.379 | 68.772 | 7.364 | 1.00 | 2.00 | lite | O |
| ATOM | 728 | CB | ASN | 96 | 51.740 | 69.405 | 8.662 | 1.00 | 37.18 | lite | O |
| ATOM | 729 | CG | ASN | 96 | 52.049 | 70.873 | 8.578 | 1.00 | 37.18 | lite | O |
| ATOM | 730 | OD1 | ASN | 96 | 51.148 | 71.610 | 8.216 | 1.00 | 37.18 | lite | O |
| ATOM | 731 | ND2 | ASN | 96 | 53.236 | 71.356 | 8.945 | 1.00 | 37.18 | lite | O |
| ATOM | 732 | C | ASN | 96 | 52.604 | 68.621 | 6.485 | 1.00 | 2.00 | lite | O |
| ATOM | 733 | O | ASN | 96 | 53.036 | 69.562 | 5.824 | 1.00 | 37.18 | lite | O |
| ATOM | 734 | N | GLU | 97 | 53.325 | 67.495 | 6.548 | 1.00 | 28.31 | lite | O |
| ATOM | 735 | CA | GLU | 97 | 54.423 | 67.259 | 5.638 | 1.00 | 28.31 | lite | O |

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| ATOM | 736 | CB | GLU | 97 | 55.687 | 67.942 | 6.101 | 1.00 | 26.37 | lite | O |
|------|-----|-----|-----|-----|--------|--------|-------|------|-------|------|---|
| ATOM | 737 | CG | GLU | 97 | 56.156 | 67.561 | 7.447 | 1.00 | 26.37 | lite | O |
| ATOM | 738 | CD | GLU | 97 | 57.312 | 68.424 | 7.937 | 1.00 | 26.37 | lite | O |
| ATOM | 739 | OE1 | GLU | 97 | 58.423 | 68.163 | 7.468 | 1.00 | 26.37 | lite | O |
| ATOM | 740 | OE2 | GLU | 97 | 57.105 | 69.298 | 8.804 | 1.00 | 26.37 | lite | O |
| ATOM | 741 | C | GLU | 97 | 54.688 | 65.784 | 5.470 | 1.00 | 28.31 | lite | O |
| ATOM | 742 | O | GLU | 97 | 54.415 | 64.936 | 6.320 | 1.00 | 26.37 | lite | O |
| ATOM | 743 | N | ASP | 98 | 55.231 | 65.536 | 4.291 | 1.00 | 8.02 | lite | O |
| ATOM | 744 | CA | ASP | 98 | 55.479 | 64.229 | 3.776 | 1.00 | 8.02 | lite | O |
| ATOM | 745 | CB | ASP | 98 | 55.680 | 64.401 | 2.311 | 1.00 | 34.38 | lite | O |
| ATOM | 746 | CG | ASP | 98 | 54.421 | 64.859 | 1.544 | 1.00 | 34.38 | lite | O |
| ATOM | 747 | OD1 | ASP | 98 | 54.520 | 65.685 | 0.630 | 1.00 | 34.38 | lite | O |
| ATOM | 748 | OD2 | ASP | 98 | 53.330 | 64.381 | 1.824 | 1.00 | 34.38 | lite | O |
| ATOM | 749 | C | ASP | 98 | 56.599 | 63.413 | 4.387 | 1.00 | 8.02 | lite | O |
| ATOM | 750 | O | ASP | 98 | 57.596 | 63.914 | 4.918 | 1.00 | 34.38 | lite | O |
| ATOM | 751 | N | CPR | 99 | 56.346 | 62.124 | 4.601 | 1.00 | 2.00 | lite | O |
| ATOM | 752 | CD | CPR | 99 | 57.328 | 61.123 | 4.941 | 1.00 | 2.00 | lite | O |
| ATOM | 753 | CA | CPR | 99 | 55.080 | 61.481 | 4.338 | 1.00 | 2.00 | lite | O |
| ATOM | 754 | CB | CPR | 99 | 55.352 | 60.032 | 4.242 | 1.00 | 2.00 | lite | O |
| ATOM | 755 | CG | CPR | 99 | 56.480 | 59.890 | 5.187 | 1.00 | 2.00 | lite | O |
| ATOM | 756 | C | CPR | 99 | 54.262 | 61.842 | 5.559 | 1.00 | 2.00 | lite | O |
| ATOM | 757 | O | CPR | 99 | 54.801 | 62.219 | 6.620 | 1.00 | 2.00 | lite | O |
| ATOM | 758 | N | PRO | 100 | 52.979 | 61.855 | 5.346 | 1.00 | 2.00 | lite | O |
| ATOM | 759 | CD | PRO | 100 | 52.368 | 61.706 | 4.024 | 1.00 | 14.88 | lite | O |
| ATOM | 760 | CA | PRO | 100 | 52.034 | 61.880 | 6.414 | 1.00 | 2.00 | lite | O |
| ATOM | 761 | CB | PRO | 100 | 50.751 | 61.891 | 5.654 | 1.00 | 14.88 | lite | O |
| ATOM | 762 | CG | PRO | 100 | 51.043 | 61.154 | 4.369 | 1.00 | 14.88 | lite | O |
| ATOM | 763 | C | PRO | 100 | 52.295 | 60.663 | 7.328 | 1.00 | 2.00 | lite | O |
| ATOM | 764 | O | PRO | 100 | 52.922 | 59.676 | 6.912 | 1.00 | 14.88 | lite | O |
| ATOM | 765 | N | THR | 101 | 51.880 | 60.697 | 8.612 | 1.00 | 2.00 | lite | O |
| ATOM | 766 | CA | THR | 101 | 52.210 | 59.675 | 9.600 | 1.00 | 2.00 | lite | O |
| ATOM | 767 | CB | THR | 101 | 53.504 | 60.086 | 10.365 | 1.00 | 2.00 | lite | O |
| ATOM | 768 | OG1 | THR | 101 | 53.214 | 61.342 | 10.890 | 1.00 | 2.00 | lite | O |
| ATOM | 769 | CG2 | THR | 101 | 54.752 | 60.306 | 9.562 | 1.00 | 2.00 | lite | O |
| ATOM | 770 | C | THR | 101 | 51.047 | 59.544 | 10.571 | 1.00 | 2.00 | lite | O |
| ATOM | 771 | O | THR | 101 | 50.284 | 60.506 | 10.732 | 1.00 | 2.00 | lite | O |
| ATOM | 772 | N | PHE | 102 | 50.887 | 58.370 | 11.192 | 1.00 | 2.00 | lite | O |
| ATOM | 773 | CA | PHE | 102 | 49.818 | 58.058 | 12.138 | 1.00 | 2.00 | lite | O |
| ATOM | 774 | CB | PHE | 102 | 49.091 | 56.801 | 11.747 | 1.00 | 2.00 | lite | O |
| ATOM | 775 | CG | PHE | 102 | 48.069 | 56.899 | 10.602 | 1.00 | 2.00 | lite | O |
| ATOM | 776 | CD1 | PHE | 102 | 48.358 | 56.397 | 9.343 | 1.00 | 2.00 | lite | O |
| ATOM | 777 | CD2 | PHE | 102 | 46.854 | 57.550 | 10.789 | 1.00 | 2.00 | lite | O |
| ATOM | 778 | CE1 | PHE | 102 | 47.447 | 56.544 | 8.311 | 1.00 | 2.00 | lite | O |
| ATOM | 779 | CE2 | PHE | 102 | 45.957 | 57.686 | 9.751 | 1.00 | 2.00 | lite | O |
| ATOM | 780 | CZ | PHE | 102 | 46.243 | 57.201 | 8.503 | 1.00 | 2.00 | lite | O |
| ATOM | 781 | C | PHE | 102 | 50.386 | 57.799 | 13.522 | 1.00 | 2.00 | lite | O |
| ATOM | 782 | O | PHE | 102 | 51.572 | 57.482 | 13.698 | 1.00 | 2.00 | lite | O |
| ATOM | 783 | N | GLY | 103 | 49.606 | 57.940 | 14.570 | 1.00 | 18.15 | lite | O |
| ATOM | 784 | CA | GLY | 103 | 50.046 | 57.488 | 15.857 | 1.00 | 18.15 | lite | O |
| ATOM | 785 | C | GLY | 103 | 49.863 | 55.964 | 15.821 | 1.00 | 18.15 | lite | O |
| ATOM | 786 | O | GLY | 103 | 49.199 | 55.337 | 14.968 | 1.00 | 13.33 | lite | O |
| ATOM | 787 | N | ALA | 104 | 50.444 | 55.344 | 16.844 | 1.00 | 2.00 | lite | O |
| ATOM | 788 | CA | ALA | 104 | 50.331 | 53.907 | 17.017 | 1.00 | 2.00 | lite | O |
| ATOM | 789 | CB | ALA | 104 | 51.407 | 53.573 | 17.974 | 1.00 | 13.82 | lite | O |
| ATOM | 790 | C | ALA | 104 | 48.966 | 53.389 | 17.473 | 1.00 | 2.00 | lite | O |
| ATOM | 791 | O | ALA | 104 | 48.706 | 52.185 | 17.473 | 1.00 | 13.82 | lite | O |
| ATOM | 792 | N | GLY | 105 | 48.038 | 54.277 | 17.800 | 1.00 | 2.00 | lite | O |
| ATOM | 793 | CA | GLY | 105 | 46.742 | 53.864 | 18.306 | 1.00 | 2.00 | lite | O |
| ATOM | 794 | C | GLY | 105 | 46.697 | 53.725 | 19.793 | 1.00 | 2.00 | lite | O |
| ATOM | 795 | O | GLY | 105 | 47.725 | 53.413 | 20.376 | 1.00 | 19.99 | lite | O |
| ATOM | 796 | N | THR | 106 | 45.554 | 54.036 | 20.380 | 1.00 | 2.00 | lite | O |
| ATOM | 797 | CA | THR | 106 | 45.337 | 53.908 | 21.810 | 1.00 | 2.00 | lite | O |
| ATOM | 798 | CB | THR | 106 | 45.100 | 55.239 | 22.403 | 1.00 | 2.00 | lite | O |
| ATOM | 799 | OG1 | THR | 106 | 46.285 | 55.947 | 22.171 | 1.00 | 2.00 | lite | O |
| ATOM | 800 | CG2 | THR | 106 | 44.794 | 55.218 | 23.835 | 1.00 | 2.00 | lite | O |
| ATOM | 801 | C | THR | 106 | 44.060 | 53.120 | 21.841 | 1.00 | 2.00 | lite | O |
| ATOM | 802 | O | THR | 106 | 43.076 | 53.440 | 21.170 | 1.00 | 2.00 | lite | O |

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| ATOM | 803 | N | LYS | 107 | 44.057 | 52.012 | 22.526 | 1.00 | 2.00 | lite | O |
|------|-----|-----|-----|-----|--------|--------|--------|------|-------|------|---|
| ATOM | 804 | CA | LYS | 107 | 42.865 | 51.216 | 22.575 | 1.00 | 2.00 | lite | O |
| ATOM | 805 | CB | LYS | 107 | 43.232 | 49.732 | 22.733 | 1.00 | 50.71 | lite | O |
| ATOM | 806 | CG | LYS | 107 | 42.041 | 48.790 | 22.973 | 1.00 | 50.71 | lite | O |
| ATOM | 807 | CD | LYS | 107 | 42.451 | 47.347 | 23.324 | 1.00 | 50.71 | lite | O |
| ATOM | 808 | CE | LYS | 107 | 41.310 | 46.371 | 23.751 | 1.00 | 50.71 | lite | O |
| ATOM | 809 | NZ | LYS | 107 | 40.876 | 46.465 | 25.159 | 1.00 | 50.71 | lite | O |
| ATOM | 810 | C | LYS | 107 | 42.094 | 51.710 | 23.775 | 1.00 | 2.00 | lite | O |
| ATOM | 811 | O | LYS | 107 | 42.686 | 51.748 | 24.851 | 1.00 | 50.71 | lite | O |
| ATOM | 812 | N | LEU | 108 | 40.843 | 52.146 | 23.644 | 1.00 | 17.43 | lite | O |
| ATOM | 813 | CA | LEU | 108 | 39.993 | 52.417 | 24.803 | 1.00 | 17.43 | lite | O |
| ATOM | 814 | CB | LEU | 108 | 39.063 | 53.613 | 24.529 | 1.00 | 7.09 | lite | O |
| ATOM | 815 | CG | LEU | 108 | 38.084 | 54.019 | 25.623 | 1.00 | 7.09 | lite | O |
| ATOM | 816 | CD1 | LEU | 108 | 38.760 | 54.328 | 26.872 | 1.00 | 7.09 | lite | O |
| ATOM | 817 | CD2 | LEU | 108 | 37.422 | 55.292 | 25.259 | 1.00 | 7.09 | lite | O |
| ATOM | 818 | C | LEU | 108 | 39.145 | 51.196 | 25.162 | 1.00 | 17.43 | lite | O |
| ATOM | 819 | O | LEU | 108 | 38.376 | 50.737 | 24.318 | 1.00 | 7.09 | lite | O |
| ATOM | 820 | N | GLU | 109 | 39.246 | 50.566 | 26.313 | 1.00 | 2.00 | lite | O |
| ATOM | 821 | CA | GLU | 109 | 38.317 | 49.518 | 26.652 | 1.00 | 2.00 | lite | O |
| ATOM | 822 | CB | GLU | 109 | 38.996 | 48.161 | 26.947 | 1.00 | 35.61 | lite | O |
| ATOM | 823 | CG | GLU | 109 | 39.428 | 47.571 | 28.293 | 1.00 | 35.61 | lite | O |
| ATOM | 824 | CD | GLU | 109 | 38.430 | 46.638 | 29.051 | 1.00 | 35.61 | lite | O |
| ATOM | 825 | OE1 | GLU | 109 | 37.239 | 46.979 | 29.113 | 1.00 | 35.61 | lite | O |
| ATOM | 826 | OE2 | GLU | 109 | 38.832 | 45.579 | 29.590 | 1.00 | 35.61 | lite | O |
| ATOM | 827 | C | GLU | 109 | 37.757 | 50.139 | 27.859 | 1.00 | 2.00 | lite | O |
| ATOM | 828 | O | GLU | 109 | 38.344 | 50.950 | 28.596 | 1.00 | 35.61 | lite | O |
| ATOM | 829 | N | MET | 110 | 36.518 | 49.766 | 28.032 | 1.00 | 2.00 | lite | O |
| ATOM | 830 | CA | MET | 110 | 35.811 | 50.496 | 29.054 | 1.00 | 2.00 | lite | O |
| ATOM | 831 | CB | MET | 110 | 35.211 | 51.617 | 28.228 | 1.00 | 41.86 | lite | O |
| ATOM | 832 | CG | MET | 110 | 34.305 | 51.195 | 27.154 | 1.00 | 41.86 | lite | O |
| ATOM | 833 | SD | MET | 110 | 32.976 | 51.036 | 28.322 | 1.00 | 41.86 | lite | O |
| ATOM | 834 | CE | MET | 110 | 32.552 | 52.749 | 28.268 | 1.00 | 41.86 | lite | O |
| ATOM | 835 | C | MET | 110 | 34.890 | 49.754 | 30.010 | 1.00 | 2.00 | lite | O |
| ATOM | 836 | O | MET | 110 | 34.399 | 48.652 | 29.760 | 1.00 | 41.86 | lite | O |
| ATOM | 837 | N | ARG | 111 | 34.746 | 50.365 | 31.176 | 1.00 | 19.31 | lite | O |
| ATOM | 838 | CA | ARG | 111 | 34.257 | 49.675 | 32.340 | 1.00 | 19.31 | lite | O |
| ATOM | 839 | CB | ARG | 111 | 35.142 | 50.048 | 33.443 | 1.00 | 67.01 | lite | O |
| ATOM | 840 | CG | ARG | 111 | 35.150 | 48.940 | 34.406 | 1.00 | 67.01 | lite | O |
| ATOM | 841 | CD | ARG | 111 | 35.545 | 49.567 | 35.713 | 1.00 | 67.01 | lite | O |
| ATOM | 842 | NE | ARG | 111 | 35.652 | 48.511 | 36.711 | 1.00 | 67.01 | lite | O |
| ATOM | 843 | CZ | ARG | 111 | 35.131 | 48.588 | 37.948 | 1.00 | 67.01 | lite | O |
| ATOM | 844 | NH1 | ARG | 111 | 34.462 | 49.675 | 38.374 | 1.00 | 67.01 | lite | O |
| ATOM | 845 | NH2 | ARG | 111 | 35.259 | 47.524 | 38.748 | 1.00 | 67.01 | lite | O |
| ATOM | 846 | C | ARG | 111 | 32.820 | 49.870 | 32.756 | 1.00 | 19.31 | lite | O |
| ATOM | 847 | O | ARG | 111 | 32.281 | 50.982 | 32.911 | 1.00 | 67.01 | lite | O |
| ATOM | 848 | N | ARG | 112 | 32.315 | 48.655 | 32.992 | 1.00 | 24.75 | lite | O |
| ATOM | 849 | CA | ARG | 112 | 30.950 | 48.426 | 33.414 | 1.00 | 24.75 | lite | O |
| ATOM | 850 | CB | ARG | 112 | 30.097 | 47.899 | 32.304 | 1.00 | 30.56 | lite | O |
| ATOM | 851 | CG | ARG | 112 | 30.649 | 46.579 | 31.878 | 1.00 | 30.56 | lite | O |
| ATOM | 852 | CD | ARG | 112 | 29.629 | 45.785 | 31.141 | 1.00 | 30.56 | lite | O |
| ATOM | 853 | NE | ARG | 112 | 28.878 | 44.982 | 32.075 | 1.00 | 30.56 | lite | O |
| ATOM | 854 | CZ | ARG | 112 | 27.574 | 44.794 | 31.957 | 1.00 | 30.56 | lite | O |
| ATOM | 855 | NH1 | ARG | 112 | 26.863 | 45.331 | 30.977 | 1.00 | 30.56 | lite | O |
| ATOM | 856 | NH2 | ARG | 112 | 26.976 | 44.036 | 32.856 | 1.00 | 30.56 | lite | O |
| ATOM | 857 | C | ARG | 112 | 30.879 | 47.410 | 34.539 | 1.00 | 24.75 | lite | O |
| ATOM | 858 | O | ARG | 112 | 31.865 | 46.813 | 34.967 | 1.00 | 30.56 | lite | O |
| ATOM | 859 | N | ALA | 113 | 29.662 | 47.214 | 35.007 | 1.00 | 16.91 | lite | O |
| ATOM | 860 | CA | ALA | 113 | 29.423 | 46.321 | 36.110 | 1.00 | 16.91 | lite | O |
| ATOM | 861 | CB | ALA | 113 | 28.000 | 46.440 | 36.558 | 1.00 | 36.67 | lite | O |
| ATOM | 862 | C | ALA | 113 | 29.663 | 44.896 | 35.703 | 1.00 | 16.91 | lite | O |
| ATOM | 863 | O | ALA | 113 | 29.252 | 44.450 | 34.637 | 1.00 | 36.67 | lite | O |
| ATOM | 864 | N | ASP | 114 | 30.257 | 44.173 | 36.620 | 1.00 | 29.40 | lite | O |
| ATOM | 865 | CA | ASP | 114 | 30.684 | 42.835 | 36.299 | 1.00 | 29.40 | lite | O |
| ATOM | 866 | CB | ASP | 114 | 31.544 | 42.366 | 37.454 | 1.00 | 73.11 | lite | O |
| ATOM | 867 | CG | ASP | 114 | 32.580 | 43.409 | 37.880 | 1.00 | 73.11 | lite | O |
| ATOM | 868 | OD1 | ASP | 114 | 33.067 | 44.199 | 37.050 | 1.00 | 73.11 | lite | O |
| ATOM | 869 | OD2 | ASP | 114 | 32.865 | 43.429 | 39.077 | 1.00 | 73.11 | lite | O |

| | | | | | | | | | | |
|------|-----|-----|-----|-----|--------|--------|--------|------|-------|------|---|
| ATOM | 870 | C   | ASP | 114 | 29.478 | 41.945 | 36.045 | 1.00 | 29.40 | lite | O |
| ATOM | 871 | O   | ASP | 114 | 28.589 | 41.840 | 36.879 | 1.00 | 73.11 | lite | O |
| ATOM | 872 | N   | ALA | 115 | 29.395 | 41.373 | 34.852 | 1.00 | 12.64 | lite | O |
| ATOM | 873 | CA  | ALA | 115 | 28.323 | 40.498 | 34.449 | 1.00 | 12.64 | lite | O |
| ATOM | 874 | CB  | ALA | 115 | 27.937 | 40.772 | 33.045 | 1.00 | 36.16 | lite | O |
| ATOM | 875 | C   | ALA | 115 | 28.847 | 39.099 | 34.507 | 1.00 | 12.64 | lite | O |
| ATOM | 876 | O   | ALA | 115 | 30.067 | 38.917 | 34.460 | 1.00 | 36.16 | lite | O |
| ATOM | 877 | N   | ALA | 116 | 27.984 | 38.088 | 34.600 | 1.00 | 23.48 | lite | O |
| ATOM | 878 | CA  | ALA | 116 | 28.457 | 36.705 | 34.582 | 1.00 | 23.48 | lite | O |
| ATOM | 879 | CB  | ALA | 116 | 27.850 | 35.870 | 35.673 | 1.00 | 21.37 | lite | O |
| ATOM | 880 | C   | ALA | 116 | 28.051 | 36.041 | 33.278 | 1.00 | 23.48 | lite | O |
| ATOM | 881 | O   | ALA | 116 | 27.030 | 36.425 | 32.662 | 1.00 | 21.37 | lite | O |
| ATOM | 882 | N   | PRO | 117 | 28.833 | 35.037 | 32.864 | 1.00 | 2.00  | lite | O |
| ATOM | 883 | CD  | PRO | 117 | 30.061 | 34.586 | 33.495 | 1.00 | 28.33 | lite | O |
| ATOM | 884 | CA  | PRO | 117 | 28.642 | 34.342 | 31.602 | 1.00 | 2.00  | lite | O |
| ATOM | 885 | CB  | PRO | 117 | 29.971 | 33.628 | 31.361 | 1.00 | 28.33 | lite | O |
| ATOM | 886 | CG  | PRO | 117 | 30.392 | 33.289 | 32.764 | 1.00 | 28.33 | lite | O |
| ATOM | 887 | C   | PRO | 117 | 27.466 | 33.389 | 31.398 | 1.00 | 2.00  | lite | O |
| ATOM | 888 | O   | PRO | 117 | 27.400 | 32.374 | 32.090 | 1.00 | 28.33 | lite | O |
| ATOM | 889 | N   | THR | 118 | 26.529 | 33.622 | 30.473 | 1.00 | 22.38 | lite | O |
| ATOM | 890 | CA  | THR | 118 | 25.529 | 32.633 | 30.061 | 1.00 | 22.38 | lite | O |
| ATOM | 891 | CB  | THR | 118 | 24.525 | 33.256 | 29.146 | 1.00 | 45.35 | lite | O |
| ATOM | 892 | OG1 | THR | 118 | 24.089 | 34.480 | 29.749 | 1.00 | 45.35 | lite | O |
| ATOM | 893 | CG2 | THR | 118 | 23.414 | 32.277 | 28.850 | 1.00 | 45.35 | lite | O |
| ATOM | 894 | C   | THR | 118 | 26.288 | 31.575 | 29.274 | 1.00 | 22.38 | lite | O |
| ATOM | 895 | O   | THR | 118 | 26.748 | 31.841 | 28.144 | 1.00 | 45.35 | lite | O |
| ATOM | 896 | N   | VAL | 119 | 26.550 | 30.422 | 29.875 | 1.00 | 28.52 | lite | O |
| ATOM | 897 | CA  | VAL | 119 | 27.256 | 29.424 | 29.089 | 1.00 | 28.52 | lite | O |
| ATOM | 898 | CB  | VAL | 119 | 28.316 | 28.749 | 30.048 | 1.00 | 38.79 | lite | O |
| ATOM | 899 | CG1 | VAL | 119 | 27.616 | 28.139 | 31.218 | 1.00 | 38.79 | lite | O |
| ATOM | 900 | CG2 | VAL | 119 | 29.119 | 27.663 | 29.331 | 1.00 | 38.79 | lite | O |
| ATOM | 901 | C   | VAL | 119 | 26.238 | 28.474 | 28.436 | 1.00 | 28.52 | lite | O |
| ATOM | 902 | O   | VAL | 119 | 25.121 | 28.309 | 28.929 | 1.00 | 38.79 | lite | O |
| ATOM | 903 | N   | SER | 120 | 26.570 | 27.893 | 27.286 | 1.00 | 2.00  | lite | O |
| ATOM | 904 | CA  | SER | 120 | 25.699 | 26.991 | 26.523 | 1.00 | 2.00  | lite | O |
| ATOM | 905 | CB  | SER | 120 | 25.062 | 27.797 | 25.418 | 1.00 | 37.53 | lite | O |
| ATOM | 906 | OG  | SER | 120 | 24.819 | 29.160 | 25.812 | 1.00 | 37.53 | lite | O |
| ATOM | 907 | C   | SER | 120 | 26.648 | 25.917 | 25.959 | 1.00 | 2.00  | lite | O |
| ATOM | 908 | O   | SER | 120 | 27.799 | 26.236 | 25.590 | 1.00 | 37.53 | lite | O |
| ATOM | 909 | N   | ILE | 121 | 26.284 | 24.622 | 25.973 | 1.00 | 30.36 | lite | O |
| ATOM | 910 | CA  | ILE | 121 | 27.152 | 23.564 | 25.445 | 1.00 | 30.36 | lite | O |
| ATOM | 911 | CB  | ILE | 121 | 27.626 | 22.648 | 26.618 | 1.00 | 31.15 | lite | O |
| ATOM | 912 | CG2 | ILE | 121 | 26.554 | 21.808 | 27.235 | 1.00 | 31.15 | lite | O |
| ATOM | 913 | CG1 | ILE | 121 | 28.654 | 21.724 | 26.070 | 1.00 | 31.15 | lite | O |
| ATOM | 914 | CD1 | ILE | 121 | 29.447 | 21.094 | 27.225 | 1.00 | 31.15 | lite | O |
| ATOM | 915 | C   | ILE | 121 | 26.298 | 22.853 | 24.419 | 1.00 | 30.36 | lite | O |
| ATOM | 916 | O   | ILE | 121 | 25.054 | 22.770 | 24.511 | 1.00 | 31.15 | lite | O |
| ATOM | 917 | N   | PHE | 122 | 27.003 | 22.524 | 23.350 | 1.00 | 30.10 | lite | O |
| ATOM | 918 | CA  | PHE | 122 | 26.386 | 22.008 | 22.147 | 1.00 | 30.10 | lite | O |
| ATOM | 919 | CB  | PHE | 122 | 26.481 | 23.005 | 21.032 | 1.00 | 23.41 | lite | O |
| ATOM | 920 | CG  | PHE | 122 | 25.595 | 24.211 | 21.271 | 1.00 | 23.41 | lite | O |
| ATOM | 921 | CD1 | PHE | 122 | 24.411 | 24.334 | 20.588 | 1.00 | 23.41 | lite | O |
| ATOM | 922 | CD2 | PHE | 122 | 25.968 | 25.196 | 22.135 | 1.00 | 23.41 | lite | O |
| ATOM | 923 | CE1 | PHE | 122 | 23.610 | 25.437 | 20.775 | 1.00 | 23.41 | lite | O |
| ATOM | 924 | CE2 | PHE | 122 | 25.181 | 26.288 | 22.329 | 1.00 | 23.41 | lite | O |
| ATOM | 925 | CZ  | PHE | 122 | 24.004 | 26.413 | 21.646 | 1.00 | 23.41 | lite | O |
| ATOM | 926 | C   | PHE | 122 | 27.181 | 20.797 | 21.771 | 1.00 | 30.10 | lite | O |
| ATOM | 927 | O   | PHE | 122 | 28.418 | 20.820 | 21.781 | 1.00 | 23.41 | lite | O |
| ATOM | 928 | N   | PRO | 123 | 26.508 | 19.693 | 21.537 | 1.00 | 25.34 | lite | O |
| ATOM | 929 | CD  | PRO | 123 | 25.082 | 19.538 | 21.796 | 1.00 | 28.05 | lite | O |
| ATOM | 930 | CA  | PRO | 123 | 27.152 | 18.450 | 21.134 | 1.00 | 25.34 | lite | O |
| ATOM | 931 | CB  | PRO | 123 | 26.065 | 17.455 | 21.468 | 1.00 | 28.05 | lite | O |
| ATOM | 932 | CG  | PRO | 123 | 25.086 | 18.174 | 22.405 | 1.00 | 28.05 | lite | O |
| ATOM | 933 | C   | PRO | 123 | 27.582 | 18.525 | 19.672 | 1.00 | 25.34 | lite | O |
| ATOM | 934 | O   | PRO | 123 | 27.344 | 19.559 | 19.049 | 1.00 | 28.05 | lite | O |
| ATOM | 935 | N   | PRO | 124 | 28.216 | 17.519 | 19.055 | 1.00 | 23.33 | lite | O |
| ATOM | 936 | CD  | PRO | 124 | 29.089 | 16.552 | 19.724 | 1.00 | 28.95 | lite | O |

| ATOM | 937 | CA | PRO | 124 | 28.496 | 17.484 | 17.619 | 1.00 | 23.33 | lite | O |
|------|-----|-----|-----|-----|--------|--------|--------|------|-------|------|---|
| ATOM | 938 | CB | PRO | 124 | 29.293 | 16.213 | 17.434 | 1.00 | 28.95 | lite | O |
| ATOM | 939 | CG | PRO | 124 | 30.136 | 16.177 | 18.671 | 1.00 | 28.95 | lite | O |
| ATOM | 940 | C | PRO | 124 | 27.276 | 17.544 | 16.724 | 1.00 | 23.33 | lite | O |
| ATOM | 941 | ʌ | PRO | 124 | 26.227 | 17.061 | 17.127 | 1.00 | 28.95 | lite | O |
| ATOM | 942 | N | SER | 125 | 27.333 | 18.125 | 15.517 | 1.00 | 32.42 | lite | O |
| ATOM | 943 | CA | SER | 125 | 26.195 | 18.024 | 14.601 | 1.00 | 32.42 | lite | O |
| ATOM | 944 | CB | SER | 125 | 26.184 | 19.148 | 13.610 | 1.00 | 57.38 | lite | O |
| ATOM | 945 | OG | SER | 125 | 27.375 | 19.117 | 12.838 | 1.00 | 57.38 | lite | O |
| ATOM | 946 | C | SER | 125 | 26.367 | 16.719 | 13.828 | 1.00 | 32.42 | lite | O |
| ATOM | 947 | O | SER | 125 | 27.511 | 16.336 | 13.503 | 1.00 | 57.38 | lite | O |
| ATOM | 948 | N | SER | 126 | 25.290 | 16.055 | 13.403 | 1.00 | 48.68 | lite | O |
| ATOM | 949 | CA | SER | 126 | 25.468 | 14.764 | 12.767 | 1.00 | 48.68 | lite | O |
| ATOM | 950 | CB | SER | 126 | 24.137 | 14.203 | 12.399 | 1.00 | 67.20 | lite | O |
| ATOM | 951 | OG | SER | 126 | 23.561 | 13.960 | 13.678 | 1.00 | 67.20 | lite | O |
| ATOM | 952 | C | SER | 126 | 26.364 | 14.792 | 11.561 | 1.00 | 48.68 | lite | O |
| ATOM | 953 | O | SER | 126 | 27.215 | 13.910 | 11.434 | 1.00 | 67.20 | lite | O |
| ATOM | 954 | N | GLU | 127 | 26.316 | 15.914 | 10.841 | 1.00 | 22.07 | lite | O |
| ATOM | 955 | CA | GLU | 127 | 27.150 | 16.096 | 9.664 | 1.00 | 22.07 | lite | O |
| ATOM | 956 | CB | GLU | 127 | 26.998 | 17.470 | 9.079 | 1.00 | 63.37 | lite | O |
| ATOM | 957 | CG | GLU | 127 | 25.669 | 17.688 | 8.378 | 1.00 | 63.37 | lite | O |
| ATOM | 958 | CD | GLU | 127 | 24.498 | 18.219 | 9.211 | 1.00 | 63.37 | lite | O |
| ATOM | 959 | OE1 | GLU | 127 | 23.702 | 18.936 | 8.589 | 1.00 | 63.37 | lite | O |
| ATOM | 960 | OE2 | GLU | 127 | 24.373 | 17.931 | 10.422 | 1.00 | 63.37 | lite | O |
| ATOM | 961 | C | GLU | 127 | 28.626 | 15.908 | 9.963 | 1.00 | 22.07 | lite | O |
| ATOM | 962 | O | GLU | 127 | 29.326 | 15.199 | 9.238 | 1.00 | 63.37 | lite | O |
| ATOM | 963 | N | GLN | 128 | 29.089 | 16.425 | 11.086 | 1.00 | 41.83 | lite | O |
| ATOM | 964 | CA | GLN | 128 | 30.506 | 16.323 | 11.331 | 1.00 | 41.83 | lite | O |
| ATOM | 965 | CB | GLN | 128 | 30.832 | 17.307 | 12.405 | 1.00 | 28.83 | lite | O |
| ATOM | 966 | CG | GLN | 128 | 32.295 | 17.504 | 12.598 | 1.00 | 28.83 | lite | O |
| ATOM | 967 | CD | GLN | 128 | 32.536 | 18.213 | 13.908 | 1.00 | 28.83 | lite | O |
| ATOM | 968 | OE1 | GLN | 128 | 31.643 | 18.447 | 14.733 | 1.00 | 28.83 | lite | O |
| ATOM | 969 | NE2 | GLN | 128 | 33.783 | 18.576 | 14.153 | 1.00 | 28.83 | lite | O |
| ATOM | 970 | C | GLN | 128 | 30.874 | 14.903 | 11.729 | 1.00 | 41.83 | lite | O |
| ATOM | 971 | O | GLN | 128 | 31.897 | 14.314 | 11.325 | 1.00 | 28.83 | lite | O |
| ATOM | 972 | N | LEU | 129 | 29.971 | 14.314 | 12.491 | 1.00 | 40.35 | lite | O |
| ATOM | 973 | CA | LEU | 129 | 30.265 | 12.984 | 12.940 | 1.00 | 40.35 | lite | O |
| ATOM | 974 | CB | LEU | 129 | 29.195 | 12.583 | 13.869 | 1.00 | 45.87 | lite | O |
| ATOM | 975 | CG | LEU | 129 | 29.571 | 12.848 | 15.291 | 1.00 | 45.87 | lite | O |
| ATOM | 976 | CD1 | LEU | 129 | 28.360 | 12.853 | 16.213 | 1.00 | 45.87 | lite | O |
| ATOM | 977 | CD2 | LEU | 129 | 30.572 | 11.780 | 15.663 | 1.00 | 45.87 | lite | O |
| ATOM | 978 | C | LEU | 129 | 30.381 | 12.023 | 11.780 | 1.00 | 40.35 | lite | O |
| ATOM | 979 | O | LEU | 129 | 31.288 | 11.199 | 11.713 | 1.00 | 45.87 | lite | O |
| ATOM | 980 | N | THR | 130 | 29.496 | 12.218 | 10.811 | 1.00 | 59.77 | lite | O |
| ATOM | 981 | CA | THR | 130 | 29.470 | 11.473 | 9.565 | 1.00 | 59.77 | lite | O |
| ATOM | 982 | CB | THR | 130 | 28.369 | 12.198 | 8.784 | 1.00 | 55.29 | lite | O |
| ATOM | 983 | OG1 | THR | 130 | 27.194 | 11.577 | 9.320 | 1.00 | 55.29 | lite | O |
| ATOM | 984 | CG2 | THR | 130 | 28.517 | 12.237 | 7.269 | 1.00 | 55.29 | lite | O |
| ATOM | 985 | C | THR | 130 | 30.860 | 11.465 | 8.941 | 1.00 | 59.77 | lite | O |
| ATOM | 986 | O | THR | 130 | 31.424 | 10.404 | 8.650 | 1.00 | 55.29 | lite | O |
| ATOM | 987 | N | SER | 131 | 31.437 | 12.673 | 8.927 | 1.00 | 44.69 | lite | O |
| ATOM | 988 | CA | SER | 131 | 32.766 | 12.946 | 8.434 | 1.00 | 44.69 | lite | O |
| ATOM | 989 | CB | SER | 131 | 32.842 | 14.414 | 8.098 | 1.00 | 83.54 | lite | O |
| ATOM | 990 | OG | SER | 131 | 31.721 | 14.794 | 7.315 | 1.00 | 83.54 | lite | O |
| ATOM | 991 | C | SER | 131 | 33.858 | 12.577 | 9.433 | 1.00 | 44.69 | lite | O |
| ATOM | 992 | O | SER | 131 | 34.954 | 13.156 | 9.438 | 1.00 | 83.54 | lite | O |
| ATOM | 993 | N | GLY | 132 | 33.620 | 11.626 | 10.323 | 1.00 | 70.66 | lite | O |
| ATOM | 994 | CA | GLY | 132 | 34.655 | 11.168 | 11.218 | 1.00 | 70.66 | lite | O |
| ATOM | 995 | C | GLY | 132 | 35.147 | 12.185 | 12.233 | 1.00 | 70.66 | lite | O |
| ATOM | 996 | O | GLY | 132 | 35.994 | 11.796 | 13.052 | 1.00 | 59.34 | lite | O |
| ATOM | 997 | N | GLY | 133 | 34.676 | 13.431 | 12.289 | 1.00 | 41.02 | lite | O |
| ATOM | 998 | CA | GLY | 133 | 35.191 | 14.340 | 13.298 | 1.00 | 41.02 | lite | O |
| ATOM | 999 | C | GLY | 133 | 34.147 | 14.688 | 14.334 | 1.00 | 41.02 | lite | O |
| ATOM | 1000 | O | GLY | 133 | 32.958 | 14.592 | 14.018 | 1.00 | 22.49 | lite | O |
| ATOM | 1001 | N | ALA | 134 | 34.547 | 15.112 | 15.544 | 1.00 | 19.27 | lite | O |
| ATOM | 1002 | CA | ALA | 134 | 33.568 | 15.559 | 16.536 | 1.00 | 19.27 | lite | O |
| ATOM | 1003 | CB | ALA | 134 | 33.322 | 14.414 | 17.507 | 1.00 | 47.51 | lite | O |

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| ATOM | 1004 | C | ALA | 134 | 33.915 | 16.837 | 17.328 | 1.00 | 19.27 | lite | O |
| ATOM | 1005 | O | ALA | 134 | 34.768 | 16.806 | 18.211 | 1.00 | 47.51 | lite | O |
| ATOM | 1006 | N | SER | 135 | 33.358 | 18.023 | 17.079 | 1.00 | 2.00 | lite | O |
| ATOM | 1007 | CA | SER | 135 | 33.653 | 19.189 | 17.898 | 1.00 | 38.27 | lite | O |
| ATOM | 1008 | CB | SER | 135 | 33.953 | 20.359 | 17.001 | 1.00 | 38.27 | lite | O |
| ATOM | 1009 | OG | SER | 135 | 35.072 | 19.996 | 16.207 | 1.00 | 38.27 | lite | O |
| ATOM | 1010 | C | SER | 135 | 32.501 | 19.531 | 18.829 | 1.00 | 2.00 | lite | O |
| ATOM | 1011 | O | SER | 135 | 31.336 | 19.619 | 18.427 | 1.00 | 38.27 | lite | O |
| ATOM | 1012 | N | VAL | 136 | 32.833 | 19.632 | 20.105 | 1.00 | 24.33 | lite | O |
| ATOM | 1013 | CA | VAL | 136 | 31.876 | 19.932 | 21.144 | 1.00 | 24.33 | lite | O |
| ATOM | 1014 | CB | VAL | 136 | 32.102 | 19.007 | 22.361 | 1.00 | 32.04 | lite | O |
| ATOM | 1015 | CG1 | VAL | 136 | 30.708 | 18.802 | 22.925 | 1.00 | 32.04 | lite | O |
| ATOM | 1016 | CG2 | VAL | 136 | 32.590 | 17.603 | 22.045 | 1.00 | 32.04 | lite | O |
| ATOM | 1017 | C | VAL | 136 | 32.122 | 21.372 | 21.508 | 1.00 | 24.33 | lite | O |
| ATOM | 1018 | O | VAL | 136 | 33.308 | 21.703 | 21.658 | 1.00 | 32.04 | lite | O |
| ATOM | 1019 | N | VAL | 137 | 31.076 | 22.196 | 21.668 | 1.00 | 2.00 | lite | O |
| ATOM | 1020 | CA | VAL | 137 | 31.237 | 23.649 | 21.723 | 1.00 | 2.00 | lite | O |
| ATOM | 1021 | CB | VAL | 137 | 30.847 | 24.204 | 20.345 | 1.00 | 24.78 | lite | O |
| ATOM | 1022 | CG1 | VAL | 137 | 30.662 | 25.706 | 20.314 | 1.00 | 24.78 | lite | O |
| ATOM | 1023 | CG2 | VAL | 137 | 32.025 | 23.975 | 19.424 | 1.00 | 24.78 | lite | O |
| ATOM | 1024 | C | VAL | 137 | 30.472 | 24.364 | 22.815 | 1.00 | 2.00 | lite | O |
| ATOM | 1025 | O | VAL | 137 | 29.288 | 24.114 | 23.097 | 1.00 | 24.78 | lite | O |
| ATOM | 1026 | N | CYS | 138 | 31.191 | 25.277 | 23.441 | 1.00 | 2.00 | lite | O |
| ATOM | 1027 | CA | CYS | 138 | 30.675 | 25.870 | 24.649 | 1.00 | 2.00 | lite | O |
| ATOM | 1028 | C | CYS | 138 | 30.817 | 27.342 | 24.396 | 1.00 | 2.00 | lite | O |
| ATOM | 1029 | O | CYS | 138 | 31.867 | 27.798 | 23.919 | 1.00 | 29.69 | lite | O |
| ATOM | 1030 | CB | CYS | 138 | 31.539 | 25.350 | 25.749 | 1.00 | 29.69 | lite | O |
| ATOM | 1031 | SG | CYS | 138 | 31.143 | 26.016 | 27.364 | 1.00 | 29.69 | lite | O |
| ATOM | 1032 | N | PHE | 139 | 29.733 | 28.048 | 24.659 | 1.00 | 2.00 | lite | O |
| ATOM | 1033 | CA | PHE | 139 | 29.651 | 29.471 | 24.412 | 1.00 | 2.00 | lite | O |
| ATOM | 1034 | CB | PHE | 139 | 28.429 | 29.923 | 23.636 | 1.00 | 20.59 | lite | O |
| ATOM | 1035 | CG | PHE | 139 | 28.346 | 29.627 | 22.132 | 1.00 | 20.59 | lite | O |
| ATOM | 1036 | CD1 | PHE | 139 | 29.393 | 29.898 | 21.279 | 1.00 | 20.59 | lite | O |
| ATOM | 1037 | CD2 | PHE | 139 | 27.182 | 29.134 | 21.571 | 1.00 | 20.59 | lite | O |
| ATOM | 1038 | CE1 | PHE | 139 | 29.290 | 29.691 | 19.909 | 1.00 | 20.59 | lite | O |
| ATOM | 1039 | CE2 | PHE | 139 | 27.088 | 28.935 | 20.210 | 1.00 | 20.59 | lite | O |
| ATOM | 1040 | CZ | PHE | 139 | 28.136 | 29.211 | 19.366 | 1.00 | 20.59 | lite | O |
| ATOM | 1041 | C | PHE | 139 | 29.501 | 30.120 | 25.745 | 1.00 | 2.00 | lite | O |
| ATOM | 1042 | O | PHE | 139 | 28.546 | 29.809 | 26.469 | 1.00 | 20.59 | lite | O |
| ATOM | 1043 | N | LEU | 140 | 30.438 | 31.010 | 26.033 | 1.00 | 2.00 | lite | O |
| ATOM | 1044 | CA | LEU | 140 | 30.352 | 31.672 | 27.293 | 1.00 | 2.00 | lite | O |
| ATOM | 1045 | CB | LEU | 140 | 31.619 | 31.485 | 28.033 | 1.00 | 18.35 | lite | O |
| ATOM | 1046 | CG | LEU | 140 | 32.090 | 30.082 | 28.336 | 1.00 | 18.35 | lite | O |
| ATOM | 1047 | CD1 | LEU | 140 | 32.648 | 29.415 | 27.102 | 1.00 | 18.35 | lite | O |
| ATOM | 1048 | CD2 | LEU | 140 | 33.222 | 30.172 | 29.341 | 1.00 | 18.35 | lite | O |
| ATOM | 1049 | C | LEU | 140 | 30.144 | 33.084 | 26.881 | 1.00 | 2.00 | lite | O |
| ATOM | 1050 | O | LEU | 140 | 31.020 | 33.834 | 26.471 | 1.00 | 18.35 | lite | O |
| ATOM | 1051 | N | ASN | 141 | 28.869 | 33.357 | 26.925 | 1.00 | 2.00 | lite | O |
| ATOM | 1052 | CA | ASN | 141 | 28.366 | 34.591 | 26.382 | 1.00 | 2.00 | lite | O |
| ATOM | 1053 | CB | ASN | 141 | 27.061 | 34.456 | 25.638 | 1.00 | 28.91 | lite | O |
| ATOM | 1054 | CG | ASN | 141 | 27.038 | 33.920 | 24.232 | 1.00 | 28.91 | lite | O |
| ATOM | 1055 | OD1 | ASN | 141 | 27.999 | 33.936 | 23.473 | 1.00 | 28.91 | lite | O |
| ATOM | 1056 | ND2 | ASN | 141 | 25.854 | 33.534 | 23.778 | 1.00 | 28.91 | lite | O |
| ATOM | 1057 | C | ASN | 141 | 28.051 | 35.645 | 27.401 | 1.00 | 2.00 | lite | O |
| ATOM | 1058 | O | ASN | 141 | 27.554 | 35.420 | 28.505 | 1.00 | 28.91 | lite | O |
| ATOM | 1059 | N | ASN | 142 | 28.290 | 36.837 | 26.896 | 1.00 | 2.00 | lite | O |
| ATOM | 1060 | CA | ASN | 142 | 27.920 | 38.059 | 27.555 | 1.00 | 2.00 | lite | O |
| ATOM | 1061 | CB | ASN | 142 | 26.439 | 38.154 | 27.561 | 1.00 | 23.74 | lite | O |
| ATOM | 1062 | CG | ASN | 142 | 25.882 | 38.664 | 26.275 | 1.00 | 23.74 | lite | O |
| ATOM | 1063 | OD1 | ASN | 142 | 25.446 | 37.845 | 25.466 | 1.00 | 23.74 | lite | O |
| ATOM | 1064 | ND2 | ASN | 142 | 25.842 | 39.987 | 26.076 | 1.00 | 23.74 | lite | O |
| ATOM | 1065 | C | ASN | 142 | 28.402 | 38.321 | 28.955 | 1.00 | 2.00 | lite | O |
| ATOM | 1066 | O | ASN | 142 | 27.575 | 38.502 | 29.842 | 1.00 | 23.74 | lite | O |
| ATOM | 1067 | N | PHE | 143 | 29.708 | 38.399 | 29.201 | 1.00 | 41.87 | lite | O |
| ATOM | 1068 | CA | PHE | 143 | 30.213 | 38.651 | 30.540 | 1.00 | 41.87 | lite | O |
| ATOM | 1069 | CB | PHE | 143 | 31.011 | 37.451 | 30.988 | 1.00 | 25.57 | lite | O |
| ATOM | 1070 | CG | PHE | 143 | 32.141 | 37.046 | 30.074 | 1.00 | 25.57 | lite | O |

| ATOM | 1071 | CD1 | PHE | 143 | 33.357 | 37.664 | 30.151 | 1.00 | 25.57 | lite | O |
|------|------|-----|-----|-----|--------|--------|--------|------|-------|------|---|
| ATOM | 1072 | CD2 | PHE | 143 | 31.942 | 36.040 | 29.173 | 1.00 | 25.57 | lite | O |
| ATOM | 1073 | CE1 | PHE | 143 | 34.371 | 37.272 | 29.323 | 1.00 | 25.57 | lite | O |
| ATOM | 1074 | CE2 | PHE | 143 | 32.966 | 35.653 | 28.347 | 1.00 | 25.57 | lite | O |
| ATOM | 1075 | CZ | PHE | 143 | 34.185 | 36.266 | 28.419 | 1.00 | 25.57 | lite | O |
| ATOM | 1076 | C | PHE | 143 | 31.076 | 39.903 | 30.655 | 1.00 | 41.87 | lite | O |
| ATOM | 1077 | O | PHE | 143 | 31.466 | 40.485 | 29.627 | 1.00 | 25.57 | lite | O |
| ATOM | 1078 | N | TYR | 144 | 31.392 | 40.335 | 31.880 | 1.00 | 20.17 | lite | O |
| ATOM | 1079 | CA | TYR | 144 | 32.326 | 41.416 | 32.111 | 1.00 | 20.17 | lite | O |
| ATOM | 1080 | CB | TYR | 144 | 31.666 | 42.741 | 32.263 | 1.00 | 28.84 | lite | O |
| ATOM | 1081 | CG | TYR | 144 | 32.746 | 43.764 | 32.199 | 1.00 | 28.84 | lite | O |
| ATOM | 1082 | CD1 | TYR | 144 | 33.267 | 44.294 | 33.338 | 1.00 | 28.84 | lite | O |
| ATOM | 1083 | CE1 | TYR | 144 | 34.311 | 45.192 | 33.289 | 1.00 | 28.84 | lite | O |
| ATOM | 1084 | CD2 | TYR | 144 | 33.259 | 44.140 | 30.995 | 1.00 | 28.84 | lite | O |
| ATOM | 1085 | CE2 | TYR | 144 | 34.303 | 45.048 | 30.943 | 1.00 | 28.84 | lite | O |
| ATOM | 1086 | CZ | TYR | 144 | 34.828 | 45.569 | 32.092 | 1.00 | 28.84 | lite | O |
| ATOM | 1087 | OH | TYR | 144 | 35.886 | 46.447 | 32.036 | 1.00 | 28.84 | lite | O |
| ATOM | 1088 | C | TYR | 144 | 32.927 | 41.062 | 33.449 | 1.00 | 20.17 | lite | O |
| ATOM | 1089 | O | TYR | 144 | 32.180 | 40.712 | 34.365 | 1.00 | 28.84 | lite | O |
| ATOM | 1090 | N | CPR | 145 | 34.228 | 41.050 | 33.664 | 1.00 | 38.40 | lite | O |
| ATOM | 1091 | CD | CPR | 145 | 34.785 | 41.100 | 35.005 | 1.00 | 40.30 | lite | O |
| ATOM | 1092 | CA | CPR | 145 | 35.218 | 41.343 | 32.653 | 1.00 | 38.40 | lite | O |
| ATOM | 1093 | CB | CPR | 145 | 36.292 | 41.984 | 33.440 | 1.00 | 40.30 | lite | O |
| ATOM | 1094 | CG | CPR | 145 | 36.243 | 41.207 | 34.727 | 1.00 | 40.30 | lite | O |
| ATOM | 1095 | C | CPR | 145 | 35.635 | 40.101 | 31.893 | 1.00 | 38.40 | lite | O |
| ATOM | 1096 | O | CPR | 145 | 35.127 | 39.017 | 32.134 | 1.00 | 40.30 | lite | O |
| ATOM | 1097 | N | LYS | 146 | 36.621 | 40.264 | 31.036 | 1.00 | 13.18 | lite | O |
| ATOM | 1098 | CA | LYS | 146 | 37.070 | 39.244 | 30.108 | 1.00 | 13.18 | lite | O |
| ATOM | 1099 | CB | LYS | 146 | 37.935 | 39.922 | 29.038 | 1.00 | 77.86 | lite | O |
| ATOM | 1100 | CG | LYS | 146 | 38.903 | 40.970 | 29.571 | 1.00 | 77.86 | lite | O |
| ATOM | 1101 | CD | LYS | 146 | 39.716 | 41.640 | 28.480 | 1.00 | 77.86 | lite | O |
| ATOM | 1102 | CE | LYS | 146 | 40.622 | 42.697 | 29.132 | 1.00 | 77.86 | lite | O |
| ATOM | 1103 | NZ | LYS | 146 | 41.722 | 43.109 | 28.265 | 1.00 | 77.86 | lite | O |
| ATOM | 1104 | C | LYS | 146 | 37.797 | 38.011 | 30.591 | 1.00 | 13.18 | lite | O |
| ATOM | 1105 | O | LYS | 146 | 37.826 | 36.969 | 29.934 | 1.00 | 77.86 | lite | O |
| ATOM | 1106 | N | ASP | 147 | 38.467 | 38.121 | 31.721 | 1.00 | 2.00 | lite | O |
| ATOM | 1107 | CA | ASP | 147 | 39.268 | 37.036 | 32.272 | 1.00 | 2.00 | lite | O |
| ATOM | 1108 | CB | ASP | 147 | 40.157 | 37.525 | 33.395 | 1.00 | 62.59 | lite | O |
| ATOM | 1109 | CG | ASP | 147 | 40.362 | 39.048 | 33.387 | 1.00 | 62.59 | lite | O |
| ATOM | 1110 | OD1 | ASP | 147 | 40.954 | 39.558 | 32.436 | 1.00 | 62.59 | lite | O |
| ATOM | 1111 | OD2 | ASP | 147 | 39.893 | 39.735 | 34.301 | 1.00 | 62.59 | lite | O |
| ATOM | 1112 | C | ASP | 147 | 38.220 | 36.103 | 32.822 | 1.00 | 2.00 | lite | O |
| ATOM | 1113 | O | ASP | 147 | 37.302 | 36.417 | 33.605 | 1.00 | 62.59 | lite | O |
| ATOM | 1114 | N | ILE | 148 | 38.282 | 35.006 | 32.124 | 1.00 | 2.00 | lite | O |
| ATOM | 1115 | CA | ILE | 148 | 37.432 | 33.904 | 32.459 | 1.00 | 2.00 | lite | O |
| ATOM | 1116 | CB | ILE | 148 | 36.068 | 33.996 | 31.718 | 1.00 | 22.56 | lite | O |
| ATOM | 1117 | CG2 | ILE | 148 | 36.246 | 34.029 | 30.219 | 1.00 | 22.56 | lite | O |
| ATOM | 1118 | CG1 | ILE | 148 | 35.229 | 32.796 | 32.121 | 1.00 | 22.56 | lite | O |
| ATOM | 1119 | CD1 | ILE | 148 | 33.790 | 32.736 | 31.606 | 1.00 | 22.56 | lite | O |
| ATOM | 1120 | C | ILE | 148 | 38.210 | 32.660 | 32.054 | 1.00 | 2.00 | lite | O |
| ATOM | 1121 | O | ILE | 148 | 38.990 | 32.648 | 31.098 | 1.00 | 22.56 | lite | O |
| ATOM | 1122 | N | ASN | 149 | 38.066 | 31.622 | 32.868 | 1.00 | 51.19 | lite | O |
| ATOM | 1123 | CA | ASN | 149 | 38.762 | 30.389 | 32.665 | 1.00 | 51.19 | lite | O |
| ATOM | 1124 | CB | ASN | 149 | 39.535 | 30.168 | 33.957 | 1.00 | 101.04 | lite | O |
| ATOM | 1125 | CG | ASN | 149 | 39.602 | 28.727 | 34.446 | 1.00 | 101.04 | lite | O |
| ATOM | 1126 | OD1 | ASN | 149 | 38.995 | 28.358 | 35.452 | 1.00 | 101.04 | lite | O |
| ATOM | 1127 | ND2 | ASN | 149 | 40.358 | 27.867 | 33.765 | 1.00 | 101.04 | lite | O |
| ATOM | 1128 | C | ASN | 149 | 37.761 | 29.290 | 32.317 | 1.00 | 51.19 | lite | O |
| ATOM | 1129 | O | ASN | 149 | 36.662 | 29.196 | 32.864 | 1.00 | 101.04 | lite | O |
| ATOM | 1130 | N | VAL | 150 | 38.123 | 28.501 | 31.312 | 1.00 | 28.06 | lite | O |
| ATOM | 1131 | CA | VAL | 150 | 37.302 | 27.372 | 30.958 | 1.00 | 28.06 | lite | O |
| ATOM | 1132 | CB | VAL | 150 | 36.774 | 27.350 | 29.565 | 1.00 | 54.95 | lite | O |
| ATOM | 1133 | CG1 | VAL | 150 | 35.317 | 27.657 | 29.708 | 1.00 | 54.95 | lite | O |
| ATOM | 1134 | CG2 | VAL | 150 | 37.569 | 28.245 | 28.637 | 1.00 | 54.95 | lite | O |
| ATOM | 1135 | C | VAL | 150 | 38.077 | 26.100 | 31.046 | 1.00 | 28.06 | lite | O |
| ATOM | 1136 | O | VAL | 150 | 39.213 | 25.973 | 30.568 | 1.00 | 54.95 | lite | O |
| ATOM | 1137 | N | LYS | 151 | 37.327 | 25.183 | 31.626 | 1.00 | 56.33 | lite | O |

| ATOM | 1138 | CA   | LYS | 151 | 37.819 | 23.875 | 31.899 | 1.00 | 56.33  | lite | O |
|------|------|------|-----|-----|--------|--------|--------|------|--------|------|---|
| ATOM | 1139 | CB   | LYS | 151 | 37.733 | 23.568 | 33.422 | 1.00 | 72.68  | lite | O |
| ATOM | 1140 | CG   | LYS | 151 | 38.374 | 24.535 | 34.471 | 1.00 | 72.68  | lite | O |
| ATOM | 1141 | CD   | LYS | 151 | 37.451 | 25.037 | 35.637 | 1.00 | 72.68  | lite | O |
| ATOM | 1142 | CE   | LYS | 151 | 37.233 | 24.073 | 36.814 | 1.00 | 72.68  | lite | O |
| ATOM | 1143 | NZ   | LYS | 151 | 36.196 | 24.538 | 37.720 | 1.00 | 72.68  | lite | O |
| ATOM | 1144 | C    | LYS | 151 | 36.943 | 22.921 | 31.116 | 1.00 | 56.33  | lite | O |
| ATOM | 1145 | O    | LYS | 151 | 35.716 | 22.856 | 31.198 | 1.00 | 72.68  | lite | O |
| ATOM | 1146 | N    | TRP | 152 | 37.631 | 22.194 | 30.287 | 1.00 | 26.34  | lite | O |
| ATOM | 1147 | CA   | TRP | 152 | 36.977 | 21.149 | 29.555 | 1.00 | 26.34  | lite | O |
| ATOM | 1148 | CB   | TRP | 152 | 37.536 | 21.082 | 28.182 | 1.00 | 59.47  | lite | O |
| ATOM | 1149 | CG   | TRP | 152 | 36.573 | 21.754 | 27.232 | 1.00 | 59.47  | lite | O |
| ATOM | 1150 | CD2  | TRP | 152 | 35.307 | 21.320 | 26.940 | 1.00 | 59.47  | lite | O |
| ATOM | 1151 | CE2  | TRP | 152 | 34.940 | 22.220 | 25.957 | 1.00 | 59.47  | lite | O |
| ATOM | 1152 | CE3  | TRP | 152 | 34.451 | 20.318 | 27.334 | 1.00 | 59.47  | lite | O |
| ATOM | 1153 | CD1  | TRP | 152 | 36.954 | 22.850 | 26.510 | 1.00 | 59.47  | lite | O |
| ATOM | 1154 | NE1  | TRP | 152 | 35.934 | 23.098 | 25.739 | 1.00 | 59.47  | lite | O |
| ATOM | 1155 | CZ2  | TRP | 152 | 33.705 | 22.147 | 25.346 | 1.00 | 59.47  | lite | O |
| ATOM | 1156 | CZ3  | TRP | 152 | 33.215 | 20.245 | 26.722 | 1.00 | 59.47  | lite | O |
| ATOM | 1157 | CH2  | TRP | 152 | 32.840 | 21.147 | 25.732 | 1.00 | 59.47  | lite | O |
| ATOM | 1158 | C    | TRP | 152 | 37.108 | 19.794 | 30.190 | 1.00 | 26.34  | lite | O |
| ATOM | 1159 | O    | TRP | 152 | 38.079 | 19.067 | 30.021 | 1.00 | 59.47  | lite | O |
| ATOM | 1160 | N    | LYS | 153 | 36.111 | 19.479 | 30.971 | 1.00 | 29.41  | lite | O |
| ATOM | 1161 | CA   | LYS | 153 | 36.075 | 18.200 | 31.620 | 1.00 | 29.41  | lite | O |
| ATOM | 1162 | CB   | LYS | 153 | 35.501 | 18.410 | 33.020 | 1.00 | 89.42  | lite | O |
| ATOM | 1163 | CG   | LYS | 153 | 35.203 | 17.160 | 33.854 | 1.00 | 89.42  | lite | O |
| ATOM | 1164 | CD   | LYS | 153 | 33.713 | 16.715 | 33.826 | 1.00 | 89.42  | lite | O |
| ATOM | 1165 | CE   | LYS | 153 | 32.904 | 16.961 | 35.131 | 1.00 | 89.42  | lite | O |
| ATOM | 1166 | NZ   | LYS | 153 | 33.243 | 16.075 | 36.245 | 1.00 | 89.42  | lite | O |
| ATOM | 1167 | C    | LYS | 153 | 35.235 | 17.243 | 30.792 | 1.00 | 29.41  | lite | O |
| ATOM | 1168 | O    | LYS | 153 | 34.009 | 17.383 | 30.683 | 1.00 | 89.42  | lite | O |
| ATOM | 1169 | N    | ILE | 154 | 35.874 | 16.279 | 30.128 | 1.00 | 48.39  | lite | O |
| ATOM | 1170 | CA   | ILE | 154 | 35.095 | 15.173 | 29.568 | 1.00 | 48.39  | lite | O |
| ATOM | 1171 | CB   | ILE | 154 | 35.786 | 14.493 | 28.329 | 1.00 | 51.97  | lite | O |
| ATOM | 1172 | CG2  | ILE | 154 | 36.536 | 15.564 | 27.579 | 1.00 | 51.97  | lite | O |
| ATOM | 1173 | CG1  | ILE | 154 | 36.792 | 13.441 | 28.675 | 1.00 | 51.97  | lite | O |
| ATOM | 1174 | CD1  | ILE | 154 | 37.356 | 12.757 | 27.424 | 1.00 | 51.97  | lite | O |
| ATOM | 1175 | C    | ILE | 154 | 34.993 | 14.191 | 30.758 | 1.00 | 48.39  | lite | O |
| ATOM | 1176 | O    | ILE | 154 | 35.444 | 14.560 | 31.840 | 1.00 | 51.97  | lite | O |
| ATOM | 1177 | N    | ASP | 155 | 34.427 | 12.971 | 30.693 | 1.00 | 60.83  | lite | O |
| ATOM | 1178 | CA   | ASP | 155 | 34.284 | 11.971 | 31.777 | 1.00 | 60.83  | lite | O |
| ATOM | 1179 | CB   | ASP | 155 | 34.384 | 10.559 | 31.279 | 1.00 | 77.21  | lite | O |
| ATOM | 1180 | CG   | ASP | 155 | 33.079 | 10.083 | 30.734 | 1.00 | 77.21  | lite | O |
| ATOM | 1181 | OD1  | ASP | 155 | 33.033 | 9.803  | 29.531 | 1.00 | 77.21  | lite | O |
| ATOM | 1182 | OD2  | ASP | 155 | 32.137 | 9.996  | 31.536 | 1.00 | 77.21  | lite | O |
| ATOM | 1183 | C    | ASP | 155 | 35.344 | 12.060 | 32.833 | 1.00 | 60.83  | lite | O |
| ATOM | 1184 | O    | ASP | 155 | 36.401 | 11.459 | 32.644 | 1.00 | 77.21  | lite | O |
| ATOM | 1185 | N    | GLY | 156 | 35.098 | 12.909 | 33.845 | 1.00 | 72.08  | lite | O |
| ATOM | 1186 | CA   | GLY | 156 | 35.986 | 13.244 | 34.964 | 1.00 | 72.08  | lite | O |
| ATOM | 1187 | C    | GLY | 156 | 37.388 | 13.764 | 34.614 | 1.00 | 72.08  | lite | O |
| ATOM | 1188 | O    | GLY | 156 | 38.155 | 14.158 | 35.497 | 1.00 | 79.74  | lite | O |
| ATOM | 1189 | N    | SER | 157 | 37.766 | 13.798 | 33.349 | 1.00 | 79.91  | lite | O |
| ATOM | 1190 | CA   | SER | 157 | 39.095 | 14.108 | 32.899 | 1.00 | 79.91  | lite | O |
| ATOM | 1191 | CB   | SER | 157 | 39.497 | 12.989 | 31.902 | 1.00 | 92.43  | lite | O |
| ATOM | 1192 | OG   | SER | 157 | 38.481 | 12.336 | 31.114 | 1.00 | 92.43  | lite | O |
| ATOM | 1193 | C    | SER | 157 | 39.109 | 15.478 | 32.274 | 1.00 | 79.91  | lite | O |
| ATOM | 1194 | O    | SER | 157 | 38.302 | 15.688 | 31.357 | 1.00 | 92.43  | lite | O |
| ATOM | 1195 | N    | GLU | 158 | 39.918 | 16.437 | 32.741 | 1.00 | 86.31  | lite | O |
| ATOM | 1196 | CA   | GLU | 158 | 40.040 | 17.665 | 31.962 | 1.00 | 86.31  | lite | O |
| ATOM | 1197 | CB   | GLU | 158 | 40.834 | 18.749 | 32.716 | 1.00 | 119.68 | lite | O |
| ATOM | 1198 | CG   | GLU | 158 | 41.536 | 19.885 | 31.917 | 1.00 | 119.68 | lite | O |
| ATOM | 1199 | CD   | GLU | 158 | 40.748 | 20.906 | 31.098 | 1.00 | 119.68 | lite | O |
| ATOM | 1200 | OE1  | GLU | 158 | 40.559 | 20.718 | 29.895 | 1.00 | 119.68 | lite | O |
| ATOM | 1201 | OE2  | GLU | 158 | 40.365 | 21.927 | 31.661 | 1.00 | 119.68 | lite | O |
| ATOM | 1202 | C    | GLU | 158 | 40.789 | 17.276 | 30.689 | 1.00 | 86.31  | lite | O |
| ATOM | 1203 | O    | GLU | 158 | 41.885 | 16.708 | 30.805 | 1.00 | 119.68 | lite | O |
| ATOM | 1204 | N    | ARG | 159 | 40.261 | 17.469 | 29.471 | 1.00 | 65.27  | lite | O |

| ATOM | 1205 | CA | ARG | 159 | 41.035 | 17.140 | 28.286 | 1.00 | 65.27 | lite | O |
|------|------|-----|-----|-----|--------|--------|--------|------|-------|------|---|
| ATOM | 1206 | CB | ARG | 159 | 40.194 | 16.678 | 27.092 | 1.00 | 96.09 | lite | O |
| ATOM | 1207 | CG | ARG | 159 | 41.020 | 15.957 | 25.993 | 1.00 | 96.09 | lite | O |
| ATOM | 1208 | CD | ARG | 159 | 41.889 | 14.758 | 26.432 | 1.00 | 96.09 | lite | O |
| ATOM | 1209 | NE | ARG | 159 | 41.380 | 14.072 | 27.624 | 1.00 | 96.09 | lite | O |
| ATOM | 1210 | CZ | ARG | 159 | 42.187 | 13.563 | 28.573 | 1.00 | 96.09 | lite | O |
| ATOM | 1211 | NH1 | ARG | 159 | 43.518 | 13.616 | 28.502 | 1.00 | 96.09 | lite | O |
| ATOM | 1212 | NH2 | ARG | 159 | 41.659 | 13.082 | 29.693 | 1.00 | 96.09 | lite | O |
| ATOM | 1213 | C | ARG | 159 | 41.719 | 18.428 | 27.953 | 1.00 | 65.27 | lite | O |
| ATOM | 1214 | O | ARG | 159 | 41.215 | 19.431 | 27.477 | 1.00 | 96.09 | lite | O |
| ATOM | 1215 | N | GLN | 160 | 42.838 | 18.342 | 28.621 | 1.00 | 76.69 | lite | O |
| ATOM | 1216 | CA | GLN | 160 | 43.914 | 19.286 | 28.540 | 1.00 | 76.69 | lite | O |
| ATOM | 1217 | CB | GLN | 160 | 45.187 | 18.469 | 28.799 | 1.00 | 113.39 | lite | O |
| ATOM | 1218 | CG | GLN | 160 | 45.196 | 16.910 | 28.675 | 1.00 | 113.39 | lite | O |
| ATOM | 1219 | CD | GLN | 160 | 45.479 | 16.240 | 27.322 | 1.00 | 113.39 | lite | O |
| ATOM | 1220 | OE1 | GLN | 160 | 45.150 | 16.727 | 26.239 | 1.00 | 113.39 | lite | O |
| ATOM | 1221 | NE2 | GLN | 160 | 46.099 | 15.065 | 27.318 | 1.00 | 113.39 | lite | O |
| ATOM | 1222 | C | GLN | 160 | 44.040 | 20.125 | 27.273 | 1.00 | 76.69 | lite | O |
| ATOM | 1223 | O | GLN | 160 | 44.198 | 21.348 | 27.333 | 1.00 | 113.39 | lite | O |
| ATOM | 1224 | N | ASN | 161 | 43.964 | 19.413 | 26.138 | 1.00 | 86.12 | lite | O |
| ATOM | 1225 | CA | ASN | 161 | 44.253 | 19.968 | 24.827 | 1.00 | 86.12 | lite | O |
| ATOM | 1226 | CB | ASN | 161 | 45.706 | 19.612 | 24.490 | 1.00 | 104.43 | lite | O |
| ATOM | 1227 | CG | ASN | 161 | 46.370 | 20.471 | 23.429 | 1.00 | 104.43 | lite | O |
| ATOM | 1228 | OD1 | ASN | 161 | 45.744 | 21.305 | 22.768 | 1.00 | 104.43 | lite | O |
| ATOM | 1229 | ND2 | ASN | 161 | 47.674 | 20.298 | 23.242 | 1.00 | 104.43 | lite | O |
| ATOM | 1230 | C | ASN | 161 | 43.299 | 19.417 | 23.772 | 1.00 | 86.12 | lite | O |
| ATOM | 1231 | O | ASN | 161 | 42.613 | 18.417 | 24.006 | 1.00 | 104.43 | lite | O |
| ATOM | 1232 | N | GLY | 162 | 43.315 | 20.057 | 22.595 | 1.00 | 71.67 | lite | O |
| ATOM | 1233 | CA | GLY | 162 | 42.433 | 19.766 | 21.474 | 1.00 | 71.67 | lite | O |
| ATOM | 1234 | C | GLY | 162 | 41.315 | 20.798 | 21.486 | 1.00 | 71.67 | lite | O |
| ATOM | 1235 | O | GLY | 162 | 40.251 | 20.654 | 20.880 | 1.00 | 52.93 | lite | O |
| ATOM | 1236 | N | VAL | 163 | 41.612 | 21.904 | 22.149 | 1.00 | 2.00 | lite | O |
| ATOM | 1237 | CA | VAL | 163 | 40.630 | 22.920 | 22.416 | 1.00 | 2.00 | lite | O |
| ATOM | 1238 | CB | VAL | 163 | 40.479 | 22.908 | 23.946 | 1.00 | 38.10 | lite | O |
| ATOM | 1239 | CG1 | VAL | 163 | 41.826 | 23.219 | 24.575 | 1.00 | 38.10 | lite | O |
| ATOM | 1240 | CG2 | VAL | 163 | 39.418 | 23.898 | 24.389 | 1.00 | 38.10 | lite | O |
| ATOM | 1241 | C | VAL | 163 | 41.060 | 24.247 | 21.814 | 1.00 | 2.00 | lite | O |
| ATOM | 1242 | O | VAL | 163 | 42.261 | 24.460 | 21.638 | 1.00 | 38.10 | lite | O |
| ATOM | 1243 | N | LEU | 164 | 40.073 | 25.077 | 21.441 | 1.00 | 28.00 | lite | O |
| ATOM | 1244 | CA | LEU | 164 | 40.228 | 26.358 | 20.756 | 1.00 | 28.00 | lite | O |
| ATOM | 1245 | CB | LEU | 164 | 39.736 | 26.316 | 19.341 | 1.00 | 41.89 | lite | O |
| ATOM | 1246 | CG | LEU | 164 | 40.563 | 25.433 | 18.433 | 1.00 | 41.89 | lite | O |
| ATOM | 1247 | CD1 | LEU | 164 | 39.675 | 24.842 | 17.315 | 1.00 | 41.89 | lite | O |
| ATOM | 1248 | CD2 | LEU | 164 | 41.773 | 26.246 | 17.976 | 1.00 | 41.89 | lite | O |
| ATOM | 1249 | C | LEU | 164 | 39.399 | 27.419 | 21.410 | 1.00 | 28.00 | lite | O |
| ATOM | 1250 | O | LEU | 164 | 38.179 | 27.270 | 21.559 | 1.00 | 41.89 | lite | O |
| ATOM | 1251 | N | ASN | 165 | 40.099 | 28.520 | 21.624 | 1.00 | 23.67 | lite | O |
| ATOM | 1252 | CA | ASN | 165 | 39.501 | 29.680 | 22.249 | 1.00 | 23.67 | lite | O |
| ATOM | 1253 | CB | ASN | 165 | 40.234 | 29.956 | 23.519 | 1.00 | 46.37 | lite | O |
| ATOM | 1254 | CG | ASN | 165 | 39.612 | 29.173 | 24.622 | 1.00 | 46.37 | lite | O |
| ATOM | 1255 | OD1 | ASN | 165 | 39.236 | 28.015 | 24.448 | 1.00 | 46.37 | lite | O |
| ATOM | 1256 | ND2 | ASN | 165 | 39.506 | 29.817 | 25.772 | 1.00 | 46.37 | lite | O |
| ATOM | 1257 | C | ASN | 165 | 39.426 | 30.988 | 21.470 | 1.00 | 23.67 | lite | O |
| ATOM | 1258 | O | ASN | 165 | 40.481 | 31.427 | 21.004 | 1.00 | 46.37 | lite | O |
| ATOM | 1259 | N | SER | 166 | 38.270 | 31.651 | 21.315 | 1.00 | 2.00 | lite | O |
| ATOM | 1260 | CA | SER | 166 | 38.170 | 32.954 | 20.668 | 1.00 | 2.00 | lite | O |
| ATOM | 1261 | CB | SER | 166 | 37.544 | 32.784 | 19.310 | 1.00 | 37.42 | lite | O |
| ATOM | 1262 | OG | SER | 166 | 37.592 | 33.986 | 18.576 | 1.00 | 37.42 | lite | O |
| ATOM | 1263 | C | SER | 166 | 37.293 | 33.818 | 21.572 | 1.00 | 2.00 | lite | O |
| ATOM | 1264 | O | SER | 166 | 36.368 | 33.294 | 22.213 | 1.00 | 37.42 | lite | O |
| ATOM | 1265 | N | TRP | 167 | 37.625 | 35.102 | 21.728 | 1.00 | 2.00 | lite | O |
| ATOM | 1266 | CA | TRP | 167 | 36.891 | 36.070 | 22.537 | 1.00 | 2.00 | lite | O |
| ATOM | 1267 | CB | TRP | 167 | 37.706 | 36.859 | 23.536 | 1.00 | 25.34 | lite | O |
| ATOM | 1268 | CG | TRP | 167 | 38.119 | 36.157 | 24.790 | 1.00 | 25.34 | lite | O |
| ATOM | 1269 | CD2 | TRP | 167 | 39.054 | 35.183 | 24.874 | 1.00 | 25.34 | lite | O |
| ATOM | 1270 | CE2 | TRP | 167 | 38.953 | 34.837 | 26.224 | 1.00 | 25.34 | lite | O |
| ATOM | 1271 | CE3 | TRP | 167 | 39.921 | 34.550 | 24.004 | 1.00 | 25.34 | lite | O |

| ATOM | 1272 | CD1 | TRP | 167 | 37.505 | 36.428 | 25.989 | 1.00 | 25.34 | lite | O |
|------|------|-----|-----|-----|--------|--------|--------|------|-------|------|---|
| ATOM | 1273 | NE1 | TRP | 167 | 38.035 | 35.601 | 26.856 | 1.00 | 25.34 | lite | O |
| ATOM | 1274 | CZ2 | TRP | 167 | 39.743 | 33.838 | 26.738 | 1.00 | 25.34 | lite | O |
| ATOM | 1275 | CZ3 | TRP | 167 | 40.716 | 33.546 | 24.535 | 1.00 | 25.34 | lite | O |
| ATOM | 1276 | CH2 | TRP | 167 | 40.615 | 33.193 | 25.879 | 1.00 | 25.34 | lite | O |
| ATOM | 1277 | C   | TRP | 167 | 36.423 | 37.158 | 21.610 | 1.00 | 2.00  | lite | O |
| ATOM | 1278 | O   | TRP | 167 | 37.219 | 37.635 | 20.812 | 1.00 | 25.34 | lite | O |
| ATOM | 1279 | N   | THR | 168 | 35.206 | 37.639 | 21.679 | 1.00 | 2.00  | lite | O |
| ATOM | 1280 | CA  | THR | 168 | 34.841 | 38.838 | 20.952 | 1.00 | 2.00  | lite | O |
| ATOM | 1281 | CB  | THR | 168 | 33.376 | 39.206 | 21.140 | 1.00 | 26.73 | lite | O |
| ATOM | 1282 | OG1 | THR | 168 | 33.072 | 38.955 | 22.507 | 1.00 | 26.73 | lite | O |
| ATOM | 1283 | CG2 | THR | 168 | 32.488 | 38.507 | 20.163 | 1.00 | 26.73 | lite | O |
| ATOM | 1284 | C   | THR | 168 | 35.630 | 40.045 | 21.442 | 1.00 | 2.00  | lite | O |
| ATOM | 1285 | O   | THR | 168 | 36.448 | 40.043 | 22.368 | 1.00 | 26.73 | lite | O |
| ATOM | 1286 | N   | ASP | 169 | 35.395 | 41.138 | 20.763 | 1.00 | 20.70 | lite | O |
| ATOM | 1287 | CA  | ASP | 169 | 35.863 | 42.344 | 21.331 | 1.00 | 20.70 | lite | O |
| ATOM | 1288 | CB  | ASP | 169 | 36.371 | 43.240 | 20.413 | 1.00 | 64.71 | lite | O |
| ATOM | 1289 | CG  | ASP | 169 | 37.872 | 43.528 | 20.413 | 1.00 | 64.71 | lite | O |
| ATOM | 1290 | OD1 | ASP | 169 | 38.239 | 44.316 | 21.307 | 1.00 | 64.71 | lite | O |
| ATOM | 1291 | OD2 | ASP | 169 | 38.684 | 42.950 | 19.680 | 1.00 | 64.71 | lite | O |
| ATOM | 1292 | C   | ASP | 169 | 34.597 | 42.807 | 22.024 | 1.00 | 20.70 | lite | O |
| ATOM | 1293 | O   | ASP | 169 | 33.500 | 42.236 | 21.954 | 1.00 | 64.71 | lite | O |
| ATOM | 1294 | N   | GLN | 170 | 34.872 | 43.821 | 22.809 | 1.00 | 2.00  | lite | O |
| ATOM | 1295 | CA  | GLN | 170 | 33.894 | 44.410 | 23.668 | 1.00 | 2.00  | lite | O |
| ATOM | 1296 | CB  | GLN | 170 | 34.519 | 45.584 | 24.325 | 1.00 | 14.24 | lite | O |
| ATOM | 1297 | CG  | GLN | 170 | 33.748 | 45.942 | 25.561 | 1.00 | 14.24 | lite | O |
| ATOM | 1298 | CD  | GLN | 170 | 34.411 | 46.987 | 26.426 | 1.00 | 14.24 | lite | O |
| ATOM | 1299 | OE1 | GLN | 170 | 35.307 | 47.735 | 26.057 | 1.00 | 14.24 | lite | O |
| ATOM | 1300 | NE2 | GLN | 170 | 33.972 | 47.067 | 27.651 | 1.00 | 14.24 | lite | O |
| ATOM | 1301 | C   | GLN | 170 | 32.686 | 44.834 | 22.905 | 1.00 | 2.00  | lite | O |
| ATOM | 1302 | O   | GLN | 170 | 32.781 | 45.420 | 21.842 | 1.00 | 14.24 | lite | O |
| ATOM | 1303 | N   | ASP | 171 | 31.527 | 44.604 | 23.448 | 1.00 | 2.00  | lite | O |
| ATOM | 1304 | CA  | ASP | 171 | 30.355 | 45.013 | 22.740 | 1.00 | 2.00  | lite | O |
| ATOM | 1305 | CB  | ASP | 171 | 29.179 | 44.228 | 23.301 | 1.00 | 57.39 | lite | O |
| ATOM | 1306 | CG  | ASP | 171 | 27.914 | 44.394 | 22.451 | 1.00 | 57.39 | lite | O |
| ATOM | 1307 | OD1 | ASP | 171 | 27.653 | 43.580 | 21.556 | 1.00 | 57.39 | lite | O |
| ATOM | 1308 | OD2 | ASP | 171 | 27.175 | 45.353 | 22.677 | 1.00 | 57.39 | lite | O |
| ATOM | 1309 | C   | ASP | 171 | 30.160 | 46.528 | 22.871 | 1.00 | 2.00  | lite | O |
| ATOM | 1310 | O   | ASP | 171 | 30.174 | 47.104 | 23.966 | 1.00 | 57.39 | lite | O |
| ATOM | 1311 | N   | SER | 172 | 29.785 | 47.143 | 21.752 | 1.00 | 21.97 | lite | O |
| ATOM | 1312 | CA  | SER | 172 | 29.551 | 48.567 | 21.684 | 1.00 | 21.97 | lite | O |
| ATOM | 1313 | CB  | SER | 172 | 29.937 | 49.034 | 20.281 | 1.00 | 59.19 | lite | O |
| ATOM | 1314 | OG  | SER | 172 | 29.712 | 47.976 | 19.355 | 1.00 | 59.19 | lite | O |
| ATOM | 1315 | C   | SER | 172 | 28.145 | 48.988 | 22.044 | 1.00 | 21.97 | lite | O |
| ATOM | 1316 | O   | SER | 172 | 27.682 | 50.035 | 21.612 | 1.00 | 59.19 | lite | O |
| ATOM | 1317 | N   | LYS | 173 | 27.414 | 48.189 | 22.822 | 1.00 | 2.00  | lite | O |
| ATOM | 1318 | CA  | LYS | 173 | 26.082 | 48.561 | 23.310 | 1.00 | 2.00  | lite | O |
| ATOM | 1319 | CB  | LYS | 173 | 25.018 | 47.823 | 22.494 | 1.00 | 87.16 | lite | O |
| ATOM | 1320 | CG  | LYS | 173 | 23.644 | 48.472 | 22.606 | 1.00 | 87.16 | lite | O |
| ATOM | 1321 | CD  | LYS | 173 | 23.031 | 48.728 | 21.225 | 1.00 | 87.16 | lite | O |
| ATOM | 1322 | CE  | LYS | 173 | 23.806 | 49.756 | 20.380 | 1.00 | 87.16 | lite | O |
| ATOM | 1323 | NZ  | LYS | 173 | 23.244 | 49.924 | 19.043 | 1.00 | 87.16 | lite | O |
| ATOM | 1324 | C   | LYS | 173 | 25.980 | 48.218 | 24.807 | 1.00 | 2.00  | lite | O |
| ATOM | 1325 | O   | LYS | 173 | 25.530 | 49.040 | 25.603 | 1.00 | 87.16 | lite | O |
| ATOM | 1326 | N   | ASP | 174 | 26.440 | 47.029 | 25.225 | 1.00 | 2.00  | lite | O |
| ATOM | 1327 | CA  | ASP | 174 | 26.488 | 46.698 | 26.626 | 1.00 | 2.00  | lite | O |
| ATOM | 1328 | CB  | ASP | 174 | 25.638 | 45.483 | 26.794 | 1.00 | 28.55 | lite | O |
| ATOM | 1329 | CG  | ASP | 174 | 26.113 | 44.230 | 26.094 | 1.00 | 28.55 | lite | O |
| ATOM | 1330 | OD1 | ASP | 174 | 27.308 | 44.012 | 25.973 | 1.00 | 28.55 | lite | O |
| ATOM | 1331 | OD2 | ASP | 174 | 25.265 | 43.446 | 25.674 | 1.00 | 28.55 | lite | O |
| ATOM | 1332 | C   | ASP | 174 | 27.914 | 46.481 | 27.190 | 1.00 | 2.00  | lite | O |
| ATOM | 1333 | O   | ASP | 174 | 28.115 | 45.842 | 28.219 | 1.00 | 28.55 | lite | O |
| ATOM | 1334 | N   | SER | 175 | 28.959 | 46.783 | 26.423 | 1.00 | 2.00  | lite | O |
| ATOM | 1335 | CA  | SER | 175 | 30.327 | 46.671 | 26.875 | 1.00 | 2.00  | lite | O |
| ATOM | 1336 | CB  | SER | 175 | 30.537 | 47.712 | 27.974 | 1.00 | 15.59 | lite | O |
| ATOM | 1337 | OG  | SER | 175 | 30.181 | 48.955 | 27.355 | 1.00 | 15.59 | lite | O |
| ATOM | 1338 | C   | SER | 175 | 30.778 | 45.314 | 27.326 | 1.00 | 2.00  | lite | O |

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| ATOM | 1339 | O | SER | 175 | 31.832 | 45.204 | 27.962 | 1.00 | 15.59 | lite | O |
|------|------|-----|-----|-----|--------|--------|--------|------|-------|------|---|
| ATOM | 1340 | N | THR | 176 | 30.113 | 44.240 | 26.930 | 1.00 | 2.00 | lite | O |
| ATOM | 1341 | CA | THR | 176 | 30.594 | 42.958 | 27.419 | 1.00 | 2.00 | lite | O |
| ATOM | 1342 | CB | THR | 176 | 29.448 | 42.026 | 27.678 | 1.00 | 21.77 | lite | O |
| ATOM | 1343 | OG1 | THR | 176 | 28.775 | 41.958 | 26.455 | 1.00 | 21.77 | lite | O |
| ATOM | 1344 | CG2 | THR | 176 | 28.472 | 42.492 | 28.704 | 1.00 | 21.77 | lite | O |
| ATOM | 1345 | C | THR | 176 | 31.550 | 42.295 | 26.462 | 1.00 | 2.00 | lite | O |
| ATOM | 1346 | O | THR | 176 | 31.944 | 42.880 | 25.443 | 1.00 | 21.77 | lite | O |
| ATOM | 1347 | N | TYR | 177 | 31.914 | 41.074 | 26.859 | 1.00 | 2.00 | lite | O |
| ATOM | 1348 | CA | TYR | 177 | 32.784 | 40.207 | 26.090 | 1.00 | 2.00 | lite | O |
| ATOM | 1349 | CB | TYR | 177 | 34.046 | 39.979 | 26.827 | 1.00 | 22.81 | lite | O |
| ATOM | 1350 | CG | TYR | 177 | 34.810 | 41.258 | 26.796 | 1.00 | 22.81 | lite | O |
| ATOM | 1351 | CD1 | TYR | 177 | 35.480 | 41.634 | 25.661 | 1.00 | 22.81 | lite | O |
| ATOM | 1352 | CE1 | TYR | 177 | 36.239 | 42.780 | 25.661 | 1.00 | 22.81 | lite | O |
| ATOM | 1353 | CD2 | TYR | 177 | 34.859 | 42.019 | 27.939 | 1.00 | 22.81 | lite | O |
| ATOM | 1354 | CE2 | TYR | 177 | 35.607 | 43.179 | 27.944 | 1.00 | 22.81 | lite | O |
| ATOM | 1355 | CZ | TYR | 177 | 36.299 | 43.541 | 26.805 | 1.00 | 22.81 | lite | O |
| ATOM | 1356 | OH | TYR | 177 | 37.089 | 44.663 | 26.834 | 1.00 | 22.81 | lite | O |
| ATOM | 1357 | C | TYR | 177 | 32.062 | 38.905 | 25.923 | 1.00 | 2.00 | lite | O |
| ATOM | 1358 | O | TYR | 177 | 31.043 | 38.708 | 26.592 | 1.00 | 22.81 | lite | O |
| ATOM | 1359 | N | SER | 178 | 32.465 | 38.016 | 25.051 | 1.00 | 2.00 | lite | O |
| ATOM | 1360 | CA | SER | 178 | 31.866 | 36.709 | 25.012 | 1.00 | 2.00 | lite | O |
| ATOM | 1361 | CB | SER | 178 | 30.598 | 36.760 | 24.169 | 1.00 | 18.67 | lite | O |
| ATOM | 1362 | OG | SER | 178 | 29.697 | 37.863 | 24.432 | 1.00 | 18.67 | lite | O |
| ATOM | 1363 | C | SER | 178 | 32.951 | 35.828 | 24.398 | 1.00 | 2.00 | lite | O |
| ATOM | 1364 | O | SER | 178 | 33.907 | 36.349 | 23.814 | 1.00 | 18.67 | lite | O |
| ATOM | 1365 | N | MET | 179 | 32.937 | 34.513 | 24.528 | 1.00 | 23.48 | lite | O |
| ATOM | 1366 | CA | MET | 179 | 34.042 | 33.712 | 24.064 | 1.00 | 23.48 | lite | O |
| ATOM | 1367 | CB | MET | 179 | 35.089 | 33.580 | 25.134 | 1.00 | 26.31 | lite | O |
| ATOM | 1368 | CG | MET | 179 | 34.856 | 32.610 | 26.274 | 1.00 | 26.31 | lite | O |
| ATOM | 1369 | SD | MET | 179 | 36.523 | 31.982 | 26.602 | 1.00 | 26.31 | lite | O |
| ATOM | 1370 | CE | MET | 179 | 36.468 | 30.788 | 25.322 | 1.00 | 26.31 | lite | O |
| ATOM | 1371 | C | MET | 179 | 33.504 | 32.358 | 23.740 | 1.00 | 23.48 | lite | O |
| ATOM | 1372 | O | MET | 179 | 32.390 | 32.043 | 24.195 | 1.00 | 26.31 | lite | O |
| ATOM | 1373 | N | SER | 180 | 34.283 | 31.586 | 22.996 | 1.00 | 2.00 | lite | O |
| ATOM | 1374 | CA | SER | 180 | 33.804 | 30.292 | 22.608 | 1.00 | 2.00 | lite | O |
| ATOM | 1375 | CB | SER | 180 | 33.345 | 30.186 | 21.152 | 1.00 | 25.64 | lite | O |
| ATOM | 1376 | OG | SER | 180 | 34.353 | 29.971 | 20.146 | 1.00 | 25.64 | lite | O |
| ATOM | 1377 | C | SER | 180 | 34.941 | 29.338 | 22.723 | 1.00 | 2.00 | lite | O |
| ATOM | 1378 | O | SER | 180 | 36.060 | 29.695 | 22.306 | 1.00 | 25.64 | lite | O |
| ATOM | 1379 | N | SER | 181 | 34.583 | 28.131 | 23.193 | 1.00 | 2.00 | lite | O |
| ATOM | 1380 | CA | SER | 181 | 35.532 | 27.049 | 23.234 | 1.00 | 2.00 | lite | O |
| ATOM | 1381 | CB | SER | 181 | 35.758 | 26.585 | 24.602 | 1.00 | 41.98 | lite | O |
| ATOM | 1382 | OG | SER | 181 | 36.548 | 27.642 | 25.065 | 1.00 | 41.98 | lite | O |
| ATOM | 1383 | C | SER | 181 | 35.023 | 25.907 | 22.450 | 1.00 | 2.00 | lite | O |
| ATOM | 1384 | O | SER | 181 | 33.847 | 25.526 | 22.529 | 1.00 | 41.98 | lite | O |
| ATOM | 1385 | N | THR | 182 | 35.970 | 25.430 | 21.676 | 1.00 | 28.93 | lite | O |
| ATOM | 1386 | CA | THR | 182 | 35.698 | 24.323 | 20.805 | 1.00 | 28.93 | lite | O |
| ATOM | 1387 | CB | THR | 182 | 35.932 | 24.786 | 19.385 | 1.00 | 43.54 | lite | O |
| ATOM | 1388 | OG1 | THR | 182 | 35.104 | 25.933 | 19.230 | 1.00 | 43.54 | lite | O |
| ATOM | 1389 | CG2 | THR | 182 | 35.663 | 23.711 | 18.356 | 1.00 | 43.54 | lite | O |
| ATOM | 1390 | C | THR | 182 | 36.643 | 23.202 | 21.187 | 1.00 | 28.93 | lite | O |
| ATOM | 1391 | O | THR | 182 | 37.869 | 23.355 | 21.065 | 1.00 | 43.54 | lite | O |
| ATOM | 1392 | N | LEU | 183 | 36.063 | 22.149 | 21.751 | 1.00 | 26.05 | lite | O |
| ATOM | 1393 | CA | LEU | 183 | 36.809 | 20.960 | 22.005 | 1.00 | 26.05 | lite | O |
| ATOM | 1394 | CB | LEU | 183 | 36.289 | 20.206 | 23.147 | 1.00 | 36.47 | lite | O |
| ATOM | 1395 | CG | LEU | 183 | 37.057 | 18.927 | 23.357 | 1.00 | 36.47 | lite | O |
| ATOM | 1396 | CD1 | LEU | 183 | 38.520 | 19.205 | 23.533 | 1.00 | 36.47 | lite | O |
| ATOM | 1397 | CD2 | LEU | 183 | 36.510 | 18.244 | 24.578 | 1.00 | 36.47 | lite | O |
| ATOM | 1398 | C | LEU | 183 | 36.584 | 20.132 | 20.791 | 1.00 | 26.05 | lite | O |
| ATOM | 1399 | O | LEU | 183 | 35.450 | 19.903 | 20.393 | 1.00 | 36.47 | lite | O |
| ATOM | 1400 | N | THR | 184 | 37.663 | 19.622 | 20.272 | 1.00 | 2.00 | lite | O |
| ATOM | 1401 | CA | THR | 184 | 37.614 | 18.885 | 19.033 | 1.00 | 2.00 | lite | O |
| ATOM | 1402 | CB | THR | 184 | 38.376 | 19.697 | 17.979 | 1.00 | 40.74 | lite | O |
| ATOM | 1403 | OG1 | THR | 184 | 37.708 | 20.947 | 17.919 | 1.00 | 40.74 | lite | O |
| ATOM | 1404 | CG2 | THR | 184 | 38.346 | 19.113 | 16.592 | 1.00 | 40.74 | lite | O |
| ATOM | 1405 | C | THR | 184 | 38.230 | 17.511 | 19.239 | 1.00 | 2.00 | lite | O |

| ATOM | 1406 | O   | THR | 184 | 39.381 | 17.339 | 19.653 | 1.00 | 40.74  | lite | O |
|------|------|-----|-----|-----|--------|--------|--------|------|--------|------|---|
| ATOM | 1407 | N   | LEU | 185 | 37.431 | 16.509 | 18.922 | 1.00 | 66.73  | lite | O |
| ATOM | 1408 | CA  | LEU | 185 | 37.767 | 15.111 | 19.085 | 1.00 | 65.68  | lite | O |
| ATOM | 1409 | CB  | LEU | 185 | 36.845 | 14.442 | 20.120 | 1.00 | 65.68  | lite | O |
| ATOM | 1410 | CG  | LEU | 185 | 36.497 | 15.108 | 21.460 | 1.00 | 65.68  | lite | O |
| ATOM | 1411 | CD1 | LEU | 185 | 35.548 | 14.217 | 22.226 | 1.00 | 65.68  | lite | O |
| ATOM | 1412 | CD2 | LEU | 185 | 37.740 | 15.313 | 22.306 | 1.00 | 65.68  | lite | O |
| ATOM | 1413 | C   | LEU | 185 | 37.601 | 14.363 | 17.774 | 1.00 | 66.73  | lite | O |
| ATOM | 1414 | O   | LEU | 185 | 37.012 | 14.814 | 16.788 | 1.00 | 65.68  | lite | O |
| ATOM | 1415 | N   | THR | 186 | 38.176 | 13.183 | 17.777 | 1.00 | 45.02  | lite | O |
| ATOM | 1416 | CA  | THR | 186 | 37.980 | 12.205 | 16.730 | 1.00 | 45.02  | lite | O |
| ATOM | 1417 | CB  | THR | 186 | 39.029 | 11.140 | 16.926 | 1.00 | 81.98  | lite | O |
| ATOM | 1418 | OG1 | THR | 186 | 40.246 | 11.811 | 17.255 | 1.00 | 81.98  | lite | O |
| ATOM | 1419 | CG2 | THR | 186 | 39.093 | 10.219 | 15.729 | 1.00 | 81.98  | lite | O |
| ATOM | 1420 | C   | THR | 186 | 36.568 | 11.638 | 16.970 | 1.00 | 45.02  | lite | O |
| ATOM | 1421 | O   | THR | 186 | 36.202 | 11.510 | 18.149 | 1.00 | 81.98  | lite | O |
| ATOM | 1422 | N   | LYS | 187 | 35.761 | 11.252 | 15.967 | 1.00 | 76.81  | lite | O |
| ATOM | 1423 | CA  | LYS | 187 | 34.459 | 10.601 | 16.156 | 1.00 | 76.81  | lite | O |
| ATOM | 1424 | CB  | LYS | 187 | 34.029 |  9.941 | 14.853 | 1.00 | 66.59  | lite | O |
| ATOM | 1425 | CG  | LYS | 187 | 32.798 |  9.022 | 14.774 | 1.00 | 66.59  | lite | O |
| ATOM | 1426 | CD  | LYS | 187 | 32.823 |  8.264 | 13.435 | 1.00 | 66.59  | lite | O |
| ATOM | 1427 | CE  | LYS | 187 | 31.440 |  8.025 | 12.837 | 1.00 | 66.59  | lite | O |
| ATOM | 1428 | NZ  | LYS | 187 | 31.545 |  7.905 | 11.392 | 1.00 | 66.59  | lite | O |
| ATOM | 1429 | C   | LYS | 187 | 34.535 |  9.544 | 17.242 | 1.00 | 76.81  | lite | O |
| ATOM | 1430 | O   | LYS | 187 | 33.976 |  9.755 | 18.297 | 1.00 | 66.59  | lite | O |
| ATOM | 1431 | N   | ASP | 188 | 35.341 |  8.496 | 17.043 | 1.00 | 72.76  | lite | O |
| ATOM | 1432 | CA  | ASP | 188 | 35.509 |  7.355 | 17.932 | 1.00 | 72.76  | lite | O |
| ATOM | 1433 | CB  | ASP | 188 | 36.617 |  6.409 | 17.444 | 1.00 | 85.55  | lite | O |
| ATOM | 1434 | CG  | ASP | 188 | 36.456 |  5.698 | 16.089 | 1.00 | 85.55  | lite | O |
| ATOM | 1435 | OD1 | ASP | 188 | 35.369 |  5.214 | 15.734 | 1.00 | 85.55  | lite | O |
| ATOM | 1436 | OD2 | ASP | 188 | 37.462 |  5.603 | 15.382 | 1.00 | 85.55  | lite | O |
| ATOM | 1437 | C   | ASP | 188 | 35.870 |  7.807 | 19.319 | 1.00 | 72.76  | lite | O |
| ATOM | 1438 | O   | ASP | 188 | 35.277 |  7.362 | 20.278 | 1.00 | 85.55  | lite | O |
| ATOM | 1439 | N   | GLU | 189 | 36.814 |  8.729 | 19.424 | 1.00 | 48.55  | lite | O |
| ATOM | 1440 | CA  | GLU | 189 | 37.244 |  9.301 | 20.682 | 1.00 | 48.55  | lite | O |
| ATOM | 1441 | CB  | GLU | 189 | 38.232 | 10.400 | 20.404 | 1.00 | 80.57  | lite | O |
| ATOM | 1442 | CG  | GLU | 189 | 38.622 | 11.254 | 21.603 | 1.00 | 80.57  | lite | O |
| ATOM | 1443 | CD  | GLU | 189 | 39.901 | 10.871 | 22.346 | 1.00 | 80.57  | lite | O |
| ATOM | 1444 | OE1 | GLU | 189 | 40.929 | 10.725 | 21.673 | 1.00 | 80.57  | lite | O |
| ATOM | 1445 | OE2 | GLU | 189 | 39.879 | 10.764 | 23.586 | 1.00 | 80.57  | lite | O |
| ATOM | 1446 | C   | GLU | 189 | 36.035 |  9.847 | 21.397 | 1.00 | 48.55  | lite | O |
| ATOM | 1447 | O   | GLU | 189 | 35.850 |  9.615 | 22.586 | 1.00 | 80.57  | lite | O |
| ATOM | 1448 | N   | TYR | 190 | 35.210 | 10.544 | 20.654 | 1.00 | 44.43  | lite | O |
| ATOM | 1449 | CA  | TYR | 190 | 33.987 | 11.074 | 21.214 | 1.00 | 44.43  | lite | O |
| ATOM | 1450 | CB  | TYR | 190 | 33.384 | 12.045 | 20.227 | 1.00 | 23.16  | lite | O |
| ATOM | 1451 | CG  | TYR | 190 | 31.968 | 12.452 | 20.533 | 1.00 | 23.16  | lite | O |
| ATOM | 1452 | CD1 | TYR | 190 | 31.695 | 13.209 | 21.659 | 1.00 | 23.16  | lite | O |
| ATOM | 1453 | CE1 | TYR | 190 | 30.396 | 13.582 | 21.927 | 1.00 | 23.16  | lite | O |
| ATOM | 1454 | CD2 | TYR | 190 | 30.981 | 12.045 | 19.661 | 1.00 | 23.16  | lite | O |
| ATOM | 1455 | CE2 | TYR | 190 | 29.694 | 12.412 | 19.911 | 1.00 | 23.16  | lite | O |
| ATOM | 1456 | CZ  | TYR | 190 | 29.446 | 13.184 | 21.009 | 1.00 | 23.16  | lite | O |
| ATOM | 1457 | OH  | TYR | 190 | 28.225 | 13.770 | 20.979 | 1.00 | 23.16  | lite | O |
| ATOM | 1458 | C   | TYR | 190 | 33.020 |  9.901 | 21.474 | 1.00 | 44.43  | lite | O |
| ATOM | 1459 | O   | TYR | 190 | 32.137 |  9.880 | 22.379 | 1.00 | 23.16  | lite | O |
| ATOM | 1460 | N   | GLU | 191 | 33.188 |  8.915 | 20.599 | 1.00 | 48.14  | lite | O |
| ATOM | 1461 | CA  | GLU | 191 | 32.392 |  7.758 | 20.678 | 1.00 | 48.14  | lite | O |
| ATOM | 1462 | CB  | GLU | 191 | 32.412 |  6.995 | 19.409 | 1.00 | 155.56 | lite | O |
| ATOM | 1463 | CG  | GLU | 191 | 31.381 |  7.615 | 18.457 | 1.00 | 155.56 | lite | O |
| ATOM | 1464 | CD  | GLU | 191 | 30.945 |  6.828 | 17.200 | 1.00 | 155.56 | lite | O |
| ATOM | 1465 | OE1 | GLU | 191 | 29.940 |  7.224 | 16.578 | 1.00 | 155.56 | lite | O |
| ATOM | 1466 | OE2 | GLU | 191 | 31.598 |  5.834 | 16.829 | 1.00 | 155.56 | lite | O |
| ATOM | 1467 | C   | GLU | 191 | 32.750 |  6.842 | 21.833 | 1.00 | 48.14  | lite | O |
| ATOM | 1468 | O   | GLU | 191 | 32.021 |  5.883 | 22.126 | 1.00 | 155.56 | lite | O |
| ATOM | 1469 | N   | ARG | 192 | 33.838 |  7.074 | 22.557 | 1.00 | 80.24  | lite | O |
| ATOM | 1470 | CA  | ARG | 192 | 34.089 |  6.201 | 23.686 | 1.00 | 80.24  | lite | O |
| ATOM | 1471 | CB  | ARG | 192 | 35.499 |  5.597 | 23.484 | 1.00 | 122.40 | lite | O |
| ATOM | 1472 | CG  | ARG | 192 | 3 .676 |  6.507 | 23.195 | 1.00 | 122.40 | lite | O |

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ATOM   1473  CD   ARG   192   37.728    6.335   24.281   1.00122.40     lite    O
ATOM   1474  NE   ARG   192   39.039    6.798   23.843   1.00122.40     lite    O
ATOM   1475  CZ   ARG   192   39.955    7.355   24.656   1.00122.40     lite    O
ATOM   1476  NH1  ARG   192   39.752    7.549   25.959   1.00122.40     lite    O
ATOM   1477  NH2  ARG   192   41.138    7.705   24.149   1.00122.40     lite    O
ATOM   1478  C    ARG   192   33.915    6.919   25.012   1.00 80.24     lite    O
ATOM   1479  O    ARG   192   34.689    5.970   25.950   1.00122.40     lite    O
ATOM   1480  N    HIS   193   32.946    7.825   25.211   1.00 80.01     lite    O
ATOM   1481  CA   HIS   193   32.932    8.557   26.482   1.00 80.01     lite    O
ATOM   1482  CB   HIS   193   33.896    9.733   26.539   1.00 67.96     lite    O
ATOM   1483  CG   HIS   193   35.364    9.468   26.572   1.00 67.96     lite    O
ATOM   1484  CD2  HIS   193   36.130    9.417   25.436   1.00 67.96     lite    O
ATOM   1485  ND1  HIS   193   36.126    9.264   27.634   1.00 67.96     lite    O
ATOM   1486  CE1  HIS   193   37.346    9.089   27.169   1.00 67.96     lite    O
ATOM   1487  NE2  HIS   193   37.335    9.182   25.851   1.00 67.96     lite    O
ATOM   1488  C    HIS   193   31.607    9.199   26.829   1.00 80.01     lite    O
ATOM   1489  O    HIS   193   31.333   10.225   26.233   1.00 67.96     lite    O
ATOM   1490  N    ASN   194   30.771    8.815   27.807   1.00 51.97     lite    O
ATOM   1491  CA   ASN   194   29.495    9.503   28.010   1.00 51.97     lite    O
ATOM   1492  CB   ASN   194   28.562    8.643   28.940   1.00106.57     lite    O
ATOM   1493  CG   ASN   194   27.016    8.813   28.820   1.00106.57     lite    O
ATOM   1494  OD1  ASN   194   26.341    9.396   29.668   1.00106.57     lite    O
ATOM   1495  ND2  ASN   194   26.302    8.277   27.834   1.00106.57     lite    O
ATOM   1496  C    ASN   194   29.456   10.952   28.488   1.00 51.97     lite    O
ATOM   1497  O    ASN   194   28.415   11.561   28.330   1.00106.57     lite    O
ATOM   1498  N    SER   195   30.400   11.650   29.091   1.00 68.50     lite    O
ATOM   1499  CA   SER   195   30.180   13.056   29.406   1.00 68.50     lite    O
ATOM   1500  CB   SER   195   29.867   13.241   30.852   1.00 48.67     lite    O
ATOM   1501  OG   SER   195   28.506   12.909   30.994   1.00 48.67     lite    O
ATOM   1502  C    SER   195   31.293   14.003   29.074   1.00 68.50     lite    O
ATOM   1503  O    SER   195   32.490   13.662   29.046   1.00 48.67     lite    O
ATOM   1504  N    TYR   196   30.790   15.199   28.771   1.00 59.51     lite    O
ATOM   1505  CA   TYR   196   31.599   16.302   28.319   1.00 59.51     lite    O
ATOM   1506  CB   TYR   196   31.432   16.445   26.859   1.00 23.88     lite    O
ATOM   1507  CG   TYR   196   31.932   15.252   26.079   1.00 23.88     lite    O
ATOM   1508  CD1  TYR   196   33.239   15.260   25.660   1.00 23.88     lite    O
ATOM   1509  CE1  TYR   196   33.755   14.202   24.940   1.00 23.88     lite    O
ATOM   1510  CD2  TYR   196   31.114   14.192   25.786   1.00 23.88     lite    O
ATOM   1511  CE2  TYR   196   31.638   13.132   25.075   1.00 23.88     lite    O
ATOM   1512  CZ   TYR   196   32.951   13.131   24.642   1.00 23.88     lite    O
ATOM   1513  OH   TYR   196   33.469   12.081   23.896   1.00 23.88     lite    O
ATOM   1514  C    TYR   196   31.053   17.506   29.033   1.00 59.51     lite    O
ATOM   1515  O    TYR   196   29.835   17.569   29.260   1.00 23.88     lite    O
ATOM   1516  N    THR   197   31.958   18.418   29.398   1.00 33.24     lite    O
ATOM   1517  CA   THR   197   31.631   19.544   30.274   1.00 33.24     lite    O
ATOM   1518  CB   THR   197   31.666   19.144   31.754   1.00 44.70     lite    O
ATOM   1519  OG1  THR   197   30.958   17.920   31.872   1.00 44.70     lite    O
ATOM   1520  CG2  THR   197   31.117   20.216   32.649   1.00 44.70     lite    O
ATOM   1521  C    THR   197   32.580   20.734   30.169   1.00 33.24     lite    O
ATOM   1522  O    THR   197   33.820   20.594   30.068   1.00 44.70     lite    O
ATOM   1523  N    CYS   198   31.978   21.919   30.204   1.00 33.71     lite    O
ATOM   1524  CA   CYS   198   32.808   23.074   30.324   1.00 33.71     lite    O
ATOM   1525  C    CYS   198   32.347   23.820   31.557   1.00 33.71     lite    O
ATOM   1526  O    CYS   198   31.175   23.939   31.940   1.00 51.24     lite    O
ATOM   1527  CB   CYS   198   32.756   23.953   29.052   1.00 51.24     lite    O
ATOM   1528  SG   CYS   198   31.123   24.303   28.400   1.00 51.24     lite    O
ATOM   1529  N    GLU   199   33.453   24.057   32.254   1.00 36.12     lite    O
ATOM   1530  CA   GLU   199   33.473   24.725   33.517   1.00 36.12     lite    O
ATOM   1531  CB   GLU   199   34.303   23.956   34.507   1.00 64.07     lite    O
ATOM   1532  CG   GLU   199   33.793   22.619   34.922   1.00 64.07     lite    O
ATOM   1533  CD   GLU   199   33.787   22.537   36.429   1.00 64.07     lite    O
ATOM   1534  OE1  GLU   199   34.734   22.003   37.001   1.00 64.07     lite    O
ATOM   1535  OE2  GLU   199   32.832   23.022   37.028   1.00 64.07     lite    O
ATOM   1536  C    GLU   199   34.072   26.096   33.360   1.00 36.12     lite    O
ATOM   1537  O    GLU   199   35.272   26.281   33.173   1.00 64.07     lite    O
ATOM   1538  N    ALA   200   33.200   27.061   33.333   1.00 43.64     lite    O
ATOM   1539  CA   ALA   200   33.655   28.416   33.290   1.00 43.64     lite    O
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| ATOM | 1540 | CB | ALA | 200 | 32.571 | 29.324 | 32.815 | 1.00 | 31.81 | lite | O |
|------|------|-----|-----|-----|--------|--------|--------|------|-------|------|---|
| ATOM | 1541 | C | ALA | 200 | 33.968 | 28.797 | 34.714 | 1.00 | 43.64 | lite | O |
| ATOM | 1542 | O | ALA | 200 | 33.083 | 28.558 | 35.542 | 1.00 | 31.81 | lite | O |
| ATOM | 1543 | N | THR | 201 | 35.139 | 29.294 | 35.105 | 1.00 | 43.29 | lite | O |
| ATOM | 1544 | CA | THR | 201 | 35.293 | 29.902 | 36.422 | 1.00 | 43.29 | lite | O |
| ATOM | 1545 | CB | THR | 201 | 36.404 | 29.334 | 37.230 | 1.00 | 70.44 | lite | O |
| ATOM | 1546 | OG1 | THR | 201 | 36.487 | 27.941 | 36.966 | 1.00 | 70.44 | lite | O |
| ATOM | 1547 | CG2 | THR | 201 | 36.113 | 29.561 | 38.705 | 1.00 | 70.44 | lite | O |
| ATOM | 1548 | C | THR | 201 | 35.646 | 31.336 | 36.118 | 1.00 | 43.29 | lite | O |
| ATOM | 1549 | O | THR | 201 | 36.374 | 31.612 | 35.159 | 1.00 | 70.44 | lite | O |
| ATOM | 1550 | N | HIS | 202 | 35.142 | 32.283 | 36.904 | 1.00 | 18.40 | lite | O |
| ATOM | 1551 | CA | HIS | 202 | 35.161 | 33.707 | 36.559 | 1.00 | 18.40 | lite | O |
| ATOM | 1552 | CB | HIS | 202 | 34.097 | 34.053 | 35.466 | 1.00 | 25.39 | lite | O |
| ATOM | 1553 | CG | HIS | 202 | 33.801 | 35.512 | 35.112 | 1.00 | 25.39 | lite | O |
| ATOM | 1554 | CD2 | HIS | 202 | 32.608 | 36.060 | 35.423 | 1.00 | 25.39 | lite | O |
| ATOM | 1555 | ND1 | HIS | 202 | 34.542 | 36.501 | 34.538 | 1.00 | 25.39 | lite | O |
| ATOM | 1556 | CE1 | HIS | 202 | 33.806 | 37.611 | 34.520 | 1.00 | 25.39 | lite | O |
| ATOM | 1557 | NE2 | HIS | 202 | 32.654 | 37.318 | 35.060 | 1.00 | 25.39 | lite | O |
| ATOM | 1558 | C | HIS | 202 | 34.781 | 34.437 | 37.809 | 1.00 | 18.40 | lite | O |
| ATOM | 1559 | O | HIS | 202 | 33.986 | 33.935 | 38.582 | 1.00 | 25.39 | lite | O |
| ATOM | 1560 | N | LYS | 203 | 35.193 | 35.686 | 37.939 | 1.00 | 59.28 | lite | O |
| ATOM | 1561 | CA | LYS | 203 | 34.969 | 36.435 | 39.141 | 1.00 | 59.28 | lite | O |
| ATOM | 1562 | CB | LYS | 203 | 35.414 | 37.881 | 38.939 | 1.00 | 82.83 | lite | O |
| ATOM | 1563 | CG | LYS | 203 | 34.980 | 38.812 | 40.101 | 1.00 | 82.83 | lite | O |
| ATOM | 1564 | CD | LYS | 203 | 34.737 | 40.270 | 39.667 | 1.00 | 82.83 | lite | O |
| ATOM | 1565 | CE | LYS | 203 | 36.025 | 41.143 | 39.538 | 1.00 | 82.83 | lite | O |
| ATOM | 1566 | NZ | LYS | 203 | 36.491 | 41.799 | 40.771 | 1.00 | 82.83 | lite | O |
| ATOM | 1567 | C | LYS | 203 | 33.545 | 36.452 | 39.648 | 1.00 | 59.28 | lite | O |
| ATOM | 1568 | O | LYS | 203 | 33.337 | 36.260 | 40.841 | 1.00 | 82.83 | lite | O |
| ATOM | 1569 | N | THR | 204 | 32.594 | 36.707 | 38.768 | 1.00 | 79.26 | lite | O |
| ATOM | 1570 | CA | THR | 204 | 31.236 | 36.943 | 39.252 | 1.00 | 79.26 | lite | O |
| ATOM | 1571 | CB | THR | 204 | 30.330 | 37.108 | 38.058 | 1.00 | 40.11 | lite | O |
| ATOM | 1572 | OG1 | THR | 204 | 31.113 | 37.682 | 37.051 | 1.00 | 40.11 | lite | O |
| ATOM | 1573 | CG2 | THR | 204 | 29.172 | 38.028 | 38.319 | 1.00 | 40.11 | lite | O |
| ATOM | 1574 | C | THR | 204 | 30.728 | 35.846 | 40.184 | 1.00 | 79.26 | lite | O |
| ATOM | 1575 | O | THR | 204 | 30.135 | 36.123 | 41.221 | 1.00 | 40.11 | lite | O |
| ATOM | 1576 | N | SER | 205 | 31.018 | 34.595 | 39.849 | 1.00 | 80.30 | lite | O |
| ATOM | 1577 | CA | SER | 205 | 30.670 | 33.485 | 40.714 | 1.00 | 80.30 | lite | O |
| ATOM | 1578 | CB | SER | 205 | 29.594 | 32.641 | 40.027 | 1.00 | 101.14 | lite | O |
| ATOM | 1579 | OG | SER | 205 | 28.471 | 33.411 | 39.594 | 1.00 | 101.14 | lite | O |
| ATOM | 1580 | C | SER | 205 | 31.910 | 32.633 | 41.013 | 1.00 | 80.30 | lite | O |
| ATOM | 1581 | O | SER | 205 | 32.596 | 32.111 | 40.120 | 1.00 | 101.14 | lite | O |
| ATOM | 1582 | N | THR | 206 | 32.132 | 32.453 | 42.318 | 1.00 | 82.84 | lite | O |
| ATOM | 1583 | CA | THR | 206 | 33.231 | 31.652 | 42.878 | 1.00 | 82.84 | lite | O |
| ATOM | 1584 | CB | THR | 206 | 33.213 | 31.779 | 44.414 | 1.00 | 82.00 | lite | O |
| ATOM | 1585 | OG1 | THR | 206 | 32.108 | 32.629 | 44.787 | 1.00 | 82.00 | lite | O |
| ATOM | 1586 | CG2 | THR | 206 | 34.564 | 32.280 | 44.919 | 1.00 | 82.00 | lite | O |
| ATOM | 1587 | C | THR | 206 | 33.192 | 30.167 | 42.502 | 1.00 | 82.84 | lite | O |
| ATOM | 1588 | O | THR | 206 | 34.202 | 29.458 | 42.452 | 1.00 | 82.00 | lite | O |
| ATOM | 1589 | N | SER | 207 | 31.933 | 29.745 | 42.332 | 1.00 | 66.90 | lite | O |
| ATOM | 1590 | CA | SER | 207 | 31.498 | 28.413 | 41.950 | 1.00 | 66.90 | lite | O |
| ATOM | 1591 | CB | SER | 207 | 30.093 | 28.210 | 42.523 | 1.00 | 76.26 | lite | O |
| ATOM | 1592 | OG | SER | 207 | 29.397 | 29.466 | 42.666 | 1.00 | 76.26 | lite | O |
| ATOM | 1593 | C | SER | 207 | 31.502 | 28.249 | 40.441 | 1.00 | 66.90 | lite | O |
| ATOM | 1594 | O | SER | 207 | 30.682 | 28.911 | 39.794 | 1.00 | 76.26 | lite | O |
| ATOM | 1595 | N | PRO | 208 | 32.389 | 27.430 | 39.855 | 1.00 | 52.10 | lite | O |
| ATOM | 1596 | CD | PRO | 208 | 33.262 | 26.483 | 40.541 | 1.00 | 50.51 | lite | O |
| ATOM | 1597 | CA | PRO | 208 | 32.519 | 27.264 | 38.423 | 1.00 | 52.10 | lite | O |
| ATOM | 1598 | CB | PRO | 208 | 33.598 | 26.227 | 38.239 | 1.00 | 50.51 | lite | O |
| ATOM | 1599 | CG | PRO | 208 | 33.497 | 25.400 | 39.484 | 1.00 | 50.51 | lite | O |
| ATOM | 1600 | C | PRO | 208 | 31.188 | 26.838 | 37.878 | 1.00 | 52.10 | lite | O |
| ATOM | 1601 | O | PRO | 208 | 30.472 | 26.047 | 38.502 | 1.00 | 50.51 | lite | O |
| ATOM | 1602 | N | ILE | 209 | 30.875 | 27.515 | 36.781 | 1.00 | 53.51 | lite | O |
| ATOM | 1603 | CA | ILE | 209 | 29.649 | 27.282 | 36.081 | 1.00 | 53.51 | lite | O |
| ATOM | 1604 | CB | ILE | 209 | 29.238 | 28.450 | 35.270 | 1.00 | 39.57 | lite | O |
| ATOM | 1605 | CG2 | ILE | 209 | 27.854 | 28.070 | 34.804 | 1.00 | 39.57 | lite | O |
| ATOM | 1606 | CG1 | ILE | 209 | 29.195 | 29.762 | 36.051 | 1.00 | 39.57 | lite | O |

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| ATOM | 1607 | CD1 | ILE | 209 | 28.379 | 30.929 | 35.438 | 1.00 | 39.57 | lite | O |
|------|------|-----|-----|-----|--------|--------|--------|------|-------|------|---|
| ATOM | 1608 | C | ILE | 209 | 29.924 | 26.132 | 35.172 | 1.00 | 53.51 | lite | O |
| ATOM | 1609 | O | ILE | 209 | 30.766 | 26.177 | 34.276 | 1.00 | 39.57 | lite | O |
| ATOM | 1610 | N | VAL | 210 | 29.170 | 25.108 | 35.520 | 1.00 | 32.58 | lite | O |
| ATOM | 1611 | CA | VAL | 210 | 29.326 | 23.807 | 34.928 | 1.00 | 32.58 | lite | O |
| ATOM | 1612 | CB | VAL | 210 | 29.278 | 22.684 | 35.957 | 1.00 | 62.24 | lite | O |
| ATOM | 1613 | CG1 | VAL | 210 | 30.258 | 21.659 | 35.519 | 1.00 | 62.24 | lite | O |
| ATOM | 1614 | CG2 | VAL | 210 | 29.646 | 23.119 | 37.350 | 1.00 | 62.24 | lite | O |
| ATOM | 1615 | C | VAL | 210 | 28.127 | 23.630 | 34.044 | 1.00 | 32.58 | lite | O |
| ATOM | 1616 | O | VAL | 210 | 27.030 | 24.019 | 34.465 | 1.00 | 62.24 | lite | O |
| ATOM | 1617 | N | LYS | 211 | 28.345 | 23.027 | 32.871 | 1.00 | 42.05 | lite | O |
| ATOM | 1618 | CA | LYS | 211 | 27.282 | 22.660 | 31.946 | 1.00 | 42.05 | lite | O |
| ATOM | 1619 | CB | LYS | 211 | 27.061 | 23.762 | 30.960 | 1.00 | 41.88 | lite | O |
| ATOM | 1620 | CG | LYS | 211 | 25.685 | 23.657 | 30.407 | 1.00 | 41.88 | lite | O |
| ATOM | 1621 | CD | LYS | 211 | 25.002 | 25.013 | 30.438 | 1.00 | 41.88 | lite | O |
| ATOM | 1622 | CE | LYS | 211 | 24.922 | 25.546 | 31.863 | 1.00 | 41.88 | lite | O |
| ATOM | 1623 | NZ | LYS | 211 | 23.965 | 26.635 | 32.000 | 1.00 | 41.88 | lite | O |
| ATOM | 1624 | C | LYS | 211 | 27.792 | 21.430 | 31.235 | 1.00 | 42.05 | lite | O |
| ATOM | 1625 | O | LYS | 211 | 28.964 | 21.414 | 30.832 | 1.00 | 41.88 | lite | O |
| ATOM | 1626 | N | SER | 212 | 26.981 | 20.402 | 31.045 | 1.00 | 43.09 | lite | O |
| ATOM | 1627 | CA | SER | 212 | 27.506 | 19.161 | 30.486 | 1.00 | 43.09 | lite | O |
| ATOM | 1628 | CB | SER | 212 | 28.036 | 18.291 | 31.599 | 1.00 | 70.12 | lite | O |
| ATOM | 1629 | OG | SER | 212 | 27.228 | 18.448 | 32.767 | 1.00 | 70.12 | lite | O |
| ATOM | 1630 | C | SER | 212 | 26.427 | 18.418 | 29.763 | 1.00 | 43.09 | lite | O |
| ATOM | 1631 | O | SER | 212 | 25.266 | 18.858 | 29.813 | 1.00 | 70.12 | lite | O |
| ATOM | 1632 | N | PHE | 213 | 26.789 | 17.297 | 29.136 | 1.00 | 52.82 | lite | O |
| ATOM | 1633 | CA | PHE | 213 | 25.802 | 16.462 | 28.467 | 1.00 | 52.82 | lite | O |
| ATOM | 1634 | CB | PHE | 213 | 25.430 | 17.070 | 27.075 | 1.00 | 65.13 | lite | O |
| ATOM | 1635 | CG | PHE | 213 | 26.488 | 16.968 | 26.011 | 1.00 | 65.13 | lite | O |
| ATOM | 1636 | CD1 | PHE | 213 | 26.376 | 15.989 | 25.070 | 1.00 | 65.13 | lite | O |
| ATOM | 1637 | CD2 | PHE | 213 | 27.567 | 17.811 | 26.035 | 1.00 | 65.13 | lite | O |
| ATOM | 1638 | CE1 | PHE | 213 | 27.375 | 15.866 | 24.147 | 1.00 | 65.13 | lite | O |
| ATOM | 1639 | CE2 | PHE | 213 | 28.556 | 17.673 | 25.100 | 1.00 | 65.13 | lite | O |
| ATOM | 1640 | CZ | PHE | 213 | 28.466 | 16.690 | 24.152 | 1.00 | 65.13 | lite | O |
| ATOM | 1641 | C | PHE | 213 | 26.308 | 15.028 | 28.306 | 1.00 | 52.82 | lite | O |
| ATOM | 1642 | O | PHE | 213 | 27.498 | 14.770 | 28.535 | 1.00 | 65.13 | lite | O |
| ATOM | 1643 | N | ASN | 214 | 25.353 | 14.137 | 27.948 | 1.00 | 55.16 | lite | O |
| ATOM | 1644 | CA | ASN | 214 | 25.555 | 12.667 | 27.623 | 1.00 | 55.16 | lite | O |
| ATOM | 1645 | CB | ASN | 214 | 24.194 | 11.951 | 27.897 | 1.00 | 136.87 | lite | O |
| ATOM | 1646 | CG | ASN | 214 | 23.010 | 12.401 | 27.028 | 1.00 | 136.87 | lite | O |
| ATOM | 1647 | OD1 | ASN | 214 | 22.201 | 13.235 | 27.447 | 1.00 | 136.87 | lite | O |
| ATOM | 1648 | ND2 | ASN | 214 | 22.916 | 11.980 | 25.772 | 1.00 | 136.87 | lite | O |
| ATOM | 1649 | C | ASN | 214 | 26.055 | 12.370 | 26.181 | 1.00 | 55.16 | lite | O |
| ATOM | 1650 | O | ASN | 214 | 25.316 | 13.005 | 25.424 | 1.00 | 136.87 | lite | O |
| ATOM | 1651 | N | ARG | 215 | 27.138 | 11.593 | 26.007 | 1.00 | 68.72 | lite | O |
| ATOM | 1652 | CA | ARG | 215 | 27.940 | 11.682 | 24.845 | 1.00 | 68.72 | lite | O |
| ATOM | 1653 | CB | ARG | 215 | 28.800 | 10.589 | 24.584 | 1.00 | 86.26 | lite | O |
| ATOM | 1654 | CG | ARG | 215 | 28.503 | 9.176 | 25.104 | 1.00 | 86.26 | lite | O |
| ATOM | 1655 | CD | ARG | 215 | 27.716 | 8.459 | 23.972 | 1.00 | 86.26 | lite | O |
| ATOM | 1656 | NE | ARG | 215 | 28.403 | 8.530 | 22.638 | 1.00 | 86.26 | lite | O |
| ATOM | 1657 | CZ | ARG | 215 | 29.660 | 7.995 | 22.489 | 1.00 | 86.26 | lite | O |
| ATOM | 1658 | NH1 | ARG | 215 | 30.523 | 7.471 | 23.590 | 1.00 | 86.26 | lite | O |
| ATOM | 1659 | NH2 | ARG | 215 | 29.732 | 7.370 | 21.185 | 1.00 | 86.26 | lite | O |
| ATOM | 1660 | C | ARG | 215 | 27.298 | 11.764 | 23.526 | 1.00 | 68.72 | lite | O |
| ATOM | 1661 | OT1 | ARG | 215 | 26.750 | 10.734 | 23.100 | 1.00 | 86.26 | lite | O |
| ATOM | 1662 | OT2 | ARG | 215 | 27.221 | 12.994 | 23.164 | 1.00 | 86.26 | lite | O |
| ATOM | 1 | CB | GLN | 1001 | .034 | 60.423 | -2.120 | 1.00 | 118.66 | heav | O |
| ATOM | 2 | CG | GLN | 1001 | .462 | 61.828 | -2.486 | 1.00 | 118.66 | heav | O |
| ATOM | 3 | CD | GLN | 1001 | .388 | 62.773 | -3.270 | 1.00 | 118.66 | heav | O |
| ATOM | 4 | OE1 | GLN | 1001 | .604 | 62.602 | -3.294 | 1.00 | 118.66 | heav | O |
| ATOM | 5 | NE2 | GLN | 1001 | .863 | 63.797 | -3.927 | 1.00 | 118.66 | heav | O |
| ATOM | 6 | C | GLN | 1001 | .507 | 58.769 | -3.447 | 1.00 | 118.66 | heav | O |
| ATOM | 7 | O | GLN | 1001 | .469 | 57.760 | -4.152 | 1.00 | 118.66 | heav | O |
| ATOM | 8 | N | GLN | 1001 | .254 | 58.306 | -3.017 | 1.00 | 73.22 | heav | O |
| ATOM | 9 | CA | GLN | 1001 | .130 | 59.423 | -3.292 | 1.00 | 73.22 | heav | O |
| ATOM | 10 | N | VAL | 1002 | .640 | 59.124 | -2.822 | 1.00 | 2.00 | heav | O |
| ATOM | 11 | CA | VAL | 1002 | .917 | 58.507 | -3.188 | 1.00 | 2.00 | heav | O |

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| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 12 | CB | VAL | 1002 | .114 | 59.305 | -2.621 | 1.00 | 31.62 | heav | O |
| ATOM | 13 | CG1 | VAL | 1002 | .265 | 59.217 | -3.602 | 1.00 | 31.62 | heav | O |
| ATOM | 14 | CG2 | VAL | 1002 | .805 | 60.776 | -2.473 | 1.00 | 31.62 | heav | O |
| ATOM | 15 | C | VAL | 1002 | .002 | 57.077 | -2.657 | 1.00 | 2.00 | heav | O |
| ATOM | 16 | O | VAL | 1002 | .408 | 56.811 | -1.609 | 1.00 | 31.62 | heav | O |
| ATOM | 17 | N | LYS | 1003 | .647 | 56.128 | -3.336 | 1.00 | 29.89 | heav | O |
| ATOM | 18 | CA | LYS | 1003 | .868 | 54.785 | -2.832 | 1.00 | 29.89 | heav | O |
| ATOM | 19 | CB | LYS | 1003 | .973 | 53.781 | -3.504 | 1.00 | 49.13 | heav | O |
| ATOM | 20 | CG | LYS | 1003 | .600 | 52.555 | -2.694 | 1.00 | 49.13 | heav | O |
| ATOM | 21 | CD | LYS | 1003 | .226 | 52.744 | -2.013 | 1.00 | 49.13 | heav | O |
| ATOM | 22 | CE | LYS | 1003 | .975 | 52.663 | -2.950 | 1.00 | 49.13 | heav | O |
| ATOM | 23 | NZ | LYS | 1003 | .658 | 52.799 | -2.300 | 1.00 | 49.13 | heav | O |
| ATOM | 24 | C | LYS | 1003 | .306 | 54.475 | -3.230 | 1.00 | 29.89 | heav | O |
| ATOM | 25 | O | LYS | 1003 | .807 | 54.948 | -4.255 | 1.00 | 49.13 | heav | O |
| ATOM | 26 | N | LEU | 1004 | .050 | 53.787 | -2.388 | 1.00 | 2.00 | heav | O |
| ATOM | 27 | CA | LEU | 1004 | .323 | 53.273 | -2.817 | 1.00 | 2.00 | heav | O |
| ATOM | 28 | CB | LEU | 1004 | .413 | 53.919 | -2.038 | 1.00 | 2.00 | heav | O |
| ATOM | 29 | CG | LEU | 1004 | .547 | 55.457 | -1.988 | 1.00 | 2.00 | heav | O |
| ATOM | 30 | CD1 | LEU | 1004 | .928 | 55.786 | -1.469 | 1.00 | 2.00 | heav | O |
| ATOM | 31 | CD2 | LEU | 1004 | .658 | 56.125 | -3.329 | 1.00 | 2.00 | heav | O |
| ATOM | 32 | C | LEU | 1004 | .309 | 51.756 | -2.574 | 1.00 | 2.00 | heav | O |
| ATOM | 33 | O | LEU | 1004 | .748 | 51.292 | -1.576 | 1.00 | 2.00 | heav | O |
| ATOM | 34 | N | GLN | 1005 | .817 | 50.910 | -3.467 | 1.00 | 2.00 | heav | O |
| ATOM | 35 | CA | GLN | 1005 | .806 | 49.474 | -3.272 | 1.00 | 2.00 | heav | O |
| ATOM | 36 | CB | GLN | 1005 | .763 | 48.780 | -4.139 | 1.00 | 76.97 | heav | O |
| ATOM | 37 | CG | GLN | 1005 | .752 | 47.275 | -3.852 | 1.00 | 76.97 | heav | O |
| ATOM | 38 | CD | GLN | 1005 | .600 | 46.397 | -4.365 | 1.00 | 76.97 | heav | O |
| ATOM | 39 | OE1 | GLN | 1005 | .637 | 46.797 | -5.025 | 1.00 | 76.97 | heav | O |
| ATOM | 40 | NE2 | GLN | 1005 | .662 | 45.106 | -4.050 | 1.00 | 76.97 | heav | O |
| ATOM | 41 | C | GLN | 1005 | .183 | 49.025 | -3.705 | 1.00 | 2.00 | heav | O |
| ATOM | 42 | O | GLN | 1005 | .697 | 49.443 | -4.748 | 1.00 | 76.97 | heav | O |
| ATOM | 43 | N | GLU | 1006 | .799 | 48.333 | -2.759 | 1.00 | 19.07 | heav | O |
| ATOM | 44 | CA | GLU | 1006 | .096 | 47.728 | -2.930 | 1.00 | 19.07 | heav | O |
| ATOM | 45 | CB | GLU | 1006 | .818 | 47.483 | -1.599 | 1.00 | 21.42 | heav | O |
| ATOM | 46 | CG | GLU | 1006 | .298 | 48.706 | -0.807 | 1.00 | 21.42 | heav | O |
| ATOM | 47 | CD | GLU | 1006 | .286 | 49.458 | 0.031 | 1.00 | 21.42 | heav | O |
| ATOM | 48 | OE1 | GLU | 1006 | .129 | 49.081 | 0.104 | 1.00 | 21.42 | heav | O |
| ATOM | 49 | OE2 | GLU | 1006 | .647 | 50.427 | 0.658 | 1.00 | 21.42 | heav | O |
| ATOM | 50 | C | GLU | 1006 | .814 | 46.373 | -3.533 | 1.00 | 19.07 | heav | O |
| ATOM | 51 | O | GLU | 1006 | .802 | 45.765 | -3.162 | 1.00 | 21.42 | heav | O |
| ATOM | 52 | N | SER | 1007 | .622 | 45.891 | -4.471 | 1.00 | 2.00 | heav | O |
| ATOM | 53 | CA | SER | 1007 | .524 | 44.508 | -4.930 | 1.00 | 2.00 | heav | O |
| ATOM | 54 | CB | SER | 1007 | .841 | 44.341 | -6.281 | 1.00 | 35.69 | heav | O |
| ATOM | 55 | OG | SER | 1007 | .223 | 45.371 | -7.178 | 1.00 | 35.69 | heav | O |
| ATOM | 56 | C | SER | 1007 | .945 | 44.050 | -5.095 | 1.00 | 2.00 | heav | O |
| ATOM | 57 | O | SER | 1007 | .881 | 44.819 | -5.381 | 1.00 | 35.69 | heav | O |
| ATOM | 58 | N | GLY | 1008 | .039 | 42.758 | -4.857 | 1.00 | 2.00 | heav | O |
| ATOM | 59 | CA | GLY | 1008 | .302 | 42.107 | -4.960 | 1.00 | 2.00 | heav | O |
| ATOM | 60 | C | GLY | 1008 | .171 | 40.666 | -4.523 | 1.00 | 2.00 | heav | O |
| ATOM | 61 | O | GLY | 1008 | .103 | 40.221 | -4.080 | 1.00 | 30.08 | heav | O |
| ATOM | 62 | N | PRO | 1009 | .281 | 39.943 | -4.679 | 1.00 | 2.00 | heav | O |
| ATOM | 63 | CD | PRO | 1009 | .598 | 40.497 | -5.040 | 1.00 | 5.89 | heav | O |
| ATOM | 64 | CA | PRO | 1009 | .383 | 38.513 | -4.501 | 1.00 | 2.00 | heav | O |
| ATOM | 65 | CB | PRO | 1009 | .698 | 38.232 | -5.160 | 1.00 | 5.89 | heav | O |
| ATOM | 66 | CG | PRO | 1009 | .587 | 39.414 | -4.774 | 1.00 | 5.89 | heav | O |
| ATOM | 67 | C | PRO | 1009 | .320 | 38.146 | -3.037 | 1.00 | 2.00 | heav | O |
| ATOM | 68 | O | PRO | 1009 | .986 | 38.830 | -2.261 | 1.00 | 5.89 | heav | O |
| ATOM | 69 | N | ALA | 1010 | .653 | 37.092 | -2.557 | 1.00 | 2.00 | heav | O |
| ATOM | 70 | CA | ALA | 1010 | .666 | 36.827 | -1.115 | 1.00 | 2.00 | heav | O |
| ATOM | 71 | CB | ALA | 1010 | .663 | 35.752 | -0.719 | 1.00 | 34.58 | heav | O |
| ATOM | 72 | C | ALA | 1010 | .024 | 36.358 | -0.650 | 1.00 | 2.00 | heav | O |
| ATOM | 73 | O | ALA | 1010 | .454 | 36.600 | 0.467 | 1.00 | 34.58 | heav | O |
| ATOM | 74 | N | VAL | 1011 | .732 | 35.728 | -1.564 | 1.00 | 28.00 | heav | O |
| ATOM | 75 | CA | VAL | 1011 | .949 | 35.049 | -1.204 | 1.00 | 28.00 | heav | O |
| ATOM | 76 | CB | VAL | 1011 | .607 | 33.615 | -0.814 | 1.00 | 21.74 | heav | O |
| ATOM | 77 | CG1 | VAL | 1011 | .143 | 32.853 | -2.032 | 1.00 | 21.74 | heav | O |
| ATOM | 78 | CG2 | VAL | 1011 | .798 | 32.968 | -0.180 | 1.00 | 21.74 | heav | O |

| ATOM | 79  | C   | VAL | 1011 | .919   | 35.070 | -2.345 | 1.00 | 28.00 | heav | O |
| ATOM | 80  | O   | VAL | 1011 | .562   | 34.983 | -3.536 | 1.00 | 21.74 | heav | O |
| ATOM | 81  | N   | ILE | 1012 | .153   | 35.142 | -1.905 | 1.00 | 2.00  | heav | O |
| ATOM | 82  | CA  | ILE | 1012 | .169   | 35.211 | -2.889 | 1.00 | 2.00  | heav | O |
| ATOM | 83  | CB  | ILE | 1012 | .234   | 36.713 | -3.223 | 1.00 | 27.23 | heav | O |
| ATOM | 84  | CG2 | ILE | 1012 | .697   | 37.510 | -2.031 | 1.00 | 27.23 | heav | O |
| ATOM | 85  | CG1 | ILE | 1012 | .162   | 36.924 | -4.345 | 1.00 | 27.23 | heav | O |
| ATOM | 86  | CD1 | ILE | 1012 | .409   | 38.420 | -4.541 | 1.00 | 27.23 | heav | O |
| ATOM | 87  | C   | ILE | 1012 | .421   | 34.564 | -2.310 | 1.00 | 2.00  | heav | O |
| ATOM | 88  | O   | ILE | 1012 | .734   | 34.719 | -1.108 | 1.00 | 27.23 | heav | O |
| ATOM | 89  | N   | LYS | 1013 | .084   | 33.779 | -3.198 | 1.00 | 16.39 | heav | O |
| ATOM | 90  | CA  | LYS | 1013 | .356   | 33.123 | -2.875 | 1.00 | 16.39 | heav | O |
| ATOM | 91  | CB  | LYS | 1013 | .917   | 32.280 | -4.001 | 1.00 | 53.88 | heav | O |
| ATOM | 92  | CG  | LYS | 1013 | .342   | 30.892 | -4.182 | 1.00 | 53.88 | heav | O |
| ATOM | 93  | CD  | LYS | 1013 | .897   | 30.851 | -4.650 | 1.00 | 53.88 | heav | O |
| ATOM | 94  | CE  | LYS | 1013 | .721   | 31.531 | -6.021 | 1.00 | 53.88 | heav | O |
| ATOM | 95  | NZ  | LYS | 1013 | .740   | 32.621 | -6.012 | 1.00 | 53.88 | heav | O |
| ATOM | 96  | C   | LYS | 1013 | .411   | 34.160 | -2.584 | 1.00 | 16.39 | heav | O |
| ATOM | 97  | O   | LYS | 1013 | .471   | 35.193 | -3.249 | 1.00 | 53.88 | heav | O |
| ATOM | 98  | N   | PRO | 1014 | .200   | 33.949 | -1.561 | 1.00 | 2.00  | heav | O |
| ATOM | 99  | CD  | PRO | 1014 | .917   | 33.032 | -0.467 | 1.00 | 23.56 | heav | O |
| ATOM | 100 | CA  | PRO | 1014 | 55.356 | 34.779 | -1.297 | 1.00 | 2.00  | heav | O |
| ATOM | 101 | CB  | PRO | 1014 | 55.999 | 34.108 | -0.115 | 1.00 | 23.56 | heav | O |
| ATOM | 102 | CG  | PRO | 1014 | 55.307 | 32.769 | 0.022  | 1.00 | 23.56 | heav | O |
| ATOM | 103 | C   | PRO | 1014 | 56.249 | 34.923 | -2.505 | 1.00 | 2.00  | heav | O |
| ATOM | 104 | O   | PRO | 1014 | 56.395 | 34.013 | -3.329 | 1.00 | 23.56 | heav | O |
| ATOM | 105 | N   | SER | 1015 | 56.753 | 36.152 | -2.597 | 1.00 | 43.64 | heav | O |
| ATOM | 106 | CA  | SER | 1015 | 57.601 | 36.613 | -3.675 | 1.00 | 43.64 | heav | O |
| ATOM | 107 | CB  | SER | 1015 | 58.813 | 35.742 | -3.728 | 1.00 | 45.02 | heav | O |
| ATOM | 108 | OG  | SER | 1015 | 59.389 | 35.843 | -2.431 | 1.00 | 45.02 | heav | O |
| ATOM | 109 | C   | SER | 1015 | 56.876 | 36.602 | -4.993 | 1.00 | 43.64 | heav | O |
| ATOM | 110 | O   | SER | 1015 | 57.231 | 35.914 | -5.927 | 1.00 | 45.02 | heav | O |
| ATOM | 111 | N   | GLN | 1016 | 55.812 | 37.389 | -5.055 | 1.00 | 2.00  | heav | O |
| ATOM | 112 | CA  | GLN | 1016 | 54.973 | 37.594 | -6.212 | 1.00 | 2.00  | heav | O |
| ATOM | 113 | CB  | GLN | 1016 | 53.789 | 36.694 | -6.241 | 1.00 | 55.71 | heav | O |
| ATOM | 114 | CG  | GLN | 1016 | 54.022 | 35.296 | -6.727 | 1.00 | 55.71 | heav | O |
| ATOM | 115 | CD  | GLN | 1016 | 52.672 | 34.630 | -6.865 | 1.00 | 55.71 | heav | O |
| ATOM | 116 | OE1 | GLN | 1016 | 52.294 | 34.141 | -7.916 | 1.00 | 55.71 | heav | O |
| ATOM | 117 | NE2 | GLN | 1016 | 51.814 | 34.604 | -5.864 | 1.00 | 55.71 | heav | O |
| ATOM | 118 | C   | GLN | 1016 | 54.462 | 39.007 | -6.025 | 1.00 | 2.00  | heav | O |
| ATOM | 119 | O   | GLN | 1016 | 54.646 | 39.628 | -4.966 | 1.00 | 55.71 | heav | O |
| ATOM | 120 | N   | SER | 1017 | 53.910 | 39.526 | -7.123 | 1.00 | 2.00  | heav | O |
| ATOM | 121 | CA  | SER | 1017 | 53.404 | 40.872 | -7.159 | 1.00 | 2.00  | heav | O |
| ATOM | 122 | CB  | SER | 1017 | 53.544 | 41.370 | -8.559 | 1.00 | 44.81 | heav | O |
| ATOM | 123 | OG  | SER | 1017 | 52.898 | 40.440 | -9.393 | 1.00 | 44.81 | heav | O |
| ATOM | 124 | C   | SER | 1017 | 51.967 | 41.050 | -6.673 | 1.00 | 2.00  | heav | O |
| ATOM | 125 | O   | SER | 1017 | 51.017 | 40.514 | -7.253 | 1.00 | 44.81 | heav | O |
| ATOM | 126 | N   | LEU | 1018 | 51.792 | 41.767 | -5.574 | 1.00 | 2.00  | heav | O |
| ATOM | 127 | CA  | LEU | 1018 | 50.496 | 42.158 | -5.108 | 1.00 | 2.00  | heav | O |
| ATOM | 128 | CB  | LEU | 1018 | 50.653 | 42.547 | -3.685 | 1.00 | 2.00  | heav | O |
| ATOM | 129 | CG  | LEU | 1018 | 49.507 | 43.223 | -3.016 | 1.00 | 2.00  | heav | O |
| ATOM | 130 | CD1 | LEU | 1018 | 48.257 | 42.448 | -3.232 | 1.00 | 2.00  | heav | O |
| ATOM | 131 | CD2 | LEU | 1018 | 49.809 | 43.295 | -1.538 | 1.00 | 2.00  | heav | O |
| ATOM | 132 | C   | LEU | 1018 | 50.014 | 43.345 | -5.953 | 1.00 | 2.00  | heav | O |
| ATOM | 133 | O   | LEU | 1018 | 50.738 | 44.352 | -6.159 | 1.00 | 2.00  | heav | O |
| ATOM | 134 | N   | SER | 1019 | 48.797 | 43.302 | -6.465 | 1.00 | 2.00  | heav | O |
| ATOM | 135 | CA  | SER | 1019 | 48.322 | 44.470 | -7.173 | 1.00 | 2.00  | heav | O |
| ATOM | 136 | CB  | SER | 1019 | 48.456 | 44.260 | -8.650 | 1.00 | 19.50 | heav | O |
| ATOM | 137 | OG  | SER | 1019 | 48.258 | 42.876 | -8.921 | 1.00 | 19.50 | heav | O |
| ATOM | 138 | C   | SER | 1019 | 46.900 | 44.660 | -6.778 | 1.00 | 2.00  | heav | O |
| ATOM | 139 | O   | SER | 1019 | 46.071 | 43.759 | -6.839 | 1.00 | 19.50 | heav | O |
| ATOM | 140 | N   | LEU | 1020 | 46.666 | 45.789 | -6.188 | 1.00 | 2.00  | heav | O |
| ATOM | 141 | CA  | LEU | 1020 | 45.342 | 46.056 | -5.740 | 1.00 | 2.00  | heav | O |
| ATOM | 142 | CB  | LEU | 1020 | 45.452 | 46.521 | -4.377 | 1.00 | 2.00  | heav | O |
| ATOM | 143 | CG  | LEU | 1020 | 45.793 | 45.422 | -3.455 | 1.00 | 2.00  | heav | O |
| ATOM | 144 | CD1 | LEU | 1020 | 46.659 | 45.988 | -2.373 | 1.00 | 2.00  | heav | O |
| ATOM | 145 | CD2 | LEU | 1020 | 44.564 | 44.827 | -2.873 | 1.00 | 2.00  | heav | O |

| ATOM | 146 | C | LEU | 1020 | 44.740 | 47.092 | -6.620 | 1.00 | 2.00 | heav | O |
|------|-----|-----|-----|------|--------|--------|--------|------|-------|------|---|
| ATOM | 147 | O | LEU | 1020 | 45.540 | 47.731 | -7.305 | 1.00 | 2.00 | heav | O |
| ATOM | 148 | N | THR | 1021 | 43.406 | 47.228 | -6.574 | 1.00 | 20.40 | heav | O |
| ATOM | 149 | CA | THR | 1021 | 42.652 | 48.206 | -7.330 | 1.00 | 20.40 | heav | O |
| ATOM | 150 | CB | THR | 1021 | 41.932 | 47.524 | -8.471 | 1.00 | 27.68 | heav | O |
| ATOM | 151 | OG1 | THR | 1021 | 42.970 | 46.923 | -9.238 | 1.00 | 27.68 | herv | O |
| ATOM | 152 | CG2 | THR | 1021 | 41.068 | 48.459 | -9.312 | 1.00 | 27.68 | heav | O |
| ATOM | 153 | C | THR | 1021 | 41.632 | 48.852 | -6.414 | 1.00 | 20.40 | heav | O |
| ATOM | 154 | O | THR | 1021 | 40.965 | 48.159 | -5.638 | 1.00 | 27.68 | heav | O |
| ATOM | 155 | N | CYS | 1022 | 41.573 | 50.181 | -6.475 | 1.00 | 2.00 | heav | O |
| ATOM | 156 | CA | CYS | 1022 | 40.649 | 50.950 | -5.688 | 1.00 | 2.00 | heav | O |
| ATOM | 157 | C | CYS | 1022 | 39.706 | 51.577 | -6.674 | 1.00 | 2.00 | heav | O |
| ATOM | 158 | O | CYS | 1022 | 40.199 | 52.283 | -7.546 | 1.00 | 2.00 | heav | O |
| ATOM | 159 | CB | CYS | 1022 | 41.312 | 52.058 | -4.970 | 1.00 | 2.00 | heav | O |
| ATOM | 160 | SG | CYS | 1022 | 39.950 | 52.974 | -4.214 | 1.00 | 2.00 | heav | O |
| ATOM | 161 | N | ILE | 1023 | 38.395 | 51.450 | -6.539 | 1.00 | 19.11 | heav | O |
| ATOM | 162 | CA | ILE | 1023 | 37.461 | 51.903 | -7.549 | 1.00 | 19.11 | heav | O |
| ATOM | 163 | CB | ILE | 1023 | 36.573 | 50.757 | -7.871 | 1.00 | 19.13 | heav | O |
| ATOM | 164 | CG2 | ILE | 1023 | 35.634 | 51.235 | -8.954 | 1.00 | 19.13 | heav | O |
| ATOM | 165 | CG1 | ILE | 1023 | 37.387 | 49.527 | -8.257 | 1.00 | 19.13 | heav | O |
| ATOM | 166 | CD1 | ILE | 1023 | 36.602 | 48.219 | -8.505 | 1.00 | 19.13 | heav | O |
| ATOM | 167 | C | ILE | 1023 | 36.643 | 53.058 | -7.066 | 1.00 | 19.11 | heav | O |
| ATOM | 168 | O | ILE | 1023 | 35.654 | 52.817 | -6.387 | 1.00 | 19.13 | heav | O |
| ATOM | 169 | N | VAL | 1024 | 36.975 | 54.303 | -7.356 | 1.00 | 23.21 | heav | O |
| ATOM | 170 | CA | VAL | 1024 | 36.186 | 55.415 | -6.838 | 1.00 | 23.21 | heav | O |
| ATOM | 171 | CB | VAL | 1024 | 36.673 | 56.792 | -7.163 | 1.00 | 20.17 | heav | O |
| ATOM | 172 | CG1 | VAL | 1024 | 35.831 | 57.788 | -6.395 | 1.00 | 20.17 | heav | O |
| ATOM | 173 | CG2 | VAL | 1024 | 38.104 | 56.928 | -6.808 | 1.00 | 20.17 | heav | O |
| ATOM | 174 | C | VAL | 1024 | 34.914 | 55.313 | -7.596 | 1.00 | 23.21 | heav | O |
| ATOM | 175 | O | VAL | 1024 | 34.917 | 54.977 | -8.774 | 1.00 | 20.17 | heav | O |
| ATOM | 176 | N | SER | 1025 | 33.821 | 55.654 | -6.979 | 1.00 | 32.07 | heav | O |
| ATOM | 177 | CA | SER | 1025 | 32.574 | 55.534 | -7.659 | 1.00 | 32.07 | heav | O |
| ATOM | 178 | CB | SER | 1025 | 31.983 | 54.227 | -7.251 | 1.00 | 36.86 | heav | O |
| ATOM | 179 | OG | SER | 1025 | 30.766 | 54.158 | -7.945 | 1.00 | 36.86 | heav | O |
| ATOM | 180 | C | SER | 1025 | 31.762 | 56.719 | -7.201 | 1.00 | 32.07 | heav | O |
| ATOM | 181 | O | SER | 1025 | 31.853 | 57.174 | -6.057 | 1.00 | 36.86 | heav | O |
| ATOM | 182 | N | GLY | 1026 | 31.058 | 57.293 | -8.161 | 1.00 | 2.00 | heav | O |
| ATOM | 183 | CA | GLY | 1026 | 30.182 | 58.390 | -7.836 | 1.00 | 2.00 | heav | O |
| ATOM | 184 | C | GLY | 1026 | 30.878 | 59.704 | -7.502 | 1.00 | 2.00 | heav | O |
| ATOM | 185 | O | GLY | 1026 | 30.328 | 60.567 | -6.806 | 1.00 | 46.56 | heav | O |
| ATOM | 186 | N | PHE | 1027 | 32.074 | 59.848 | -8.066 | 1.00 | 22.13 | heav | O |
| ATOM | 187 | CA | PHE | 1027 | 32.914 | 61.025 | -7.912 | 1.00 | 22.13 | heav | O |
| ATOM | 188 | CB | PHE | 1027 | 33.298 | 61.197 | -6.473 | 1.00 | 20.64 | heav | O |
| ATOM | 189 | CG | PHE | 1027 | 34.014 | 62.466 | -6.099 | 1.00 | 20.64 | heav | O |
| ATOM | 190 | CD1 | PHE | 1027 | 33.319 | 63.397 | -5.358 | 1.00 | 20.64 | heav | O |
| ATOM | 191 | CD2 | PHE | 1027 | 35.358 | 62.639 | -6.398 | 1.00 | 20.64 | heav | O |
| ATOM | 192 | CE1 | PHE | 1027 | 33.991 | 64.516 | -4.898 | 1.00 | 20.64 | heav | O |
| ATOM | 193 | CE2 | PHE | 1027 | 36.010 | 63.753 | -5.931 | 1.00 | 20.64 | heav | O |
| ATOM | 194 | CZ | PHE | 1027 | 35.331 | 64.690 | -5.181 | 1.00 | 20.64 | heav | O |
| ATOM | 195 | C | PHE | 1027 | 34.147 | 60.681 | -8.758 | 1.00 | 22.13 | heav | O |
| ATOM | 196 | O | PHE | 1027 | 34.510 | 59.498 | -8.864 | 1.00 | 20.64 | heav | O |
| ATOM | 197 | N | SER | 1028 | 34.776 | 61.666 | -9.410 | 1.00 | 32.77 | heav | O |
| ATOM | 198 | CA | SER | 1028 | 35.905 | 61.396 | -10.277 | 1.00 | 32.77 | heav | O |
| ATOM | 199 | CB | SER | 1028 | 35.858 | 62.338 | -11.471 | 1.00 | 66.52 | heav | O |
| ATOM | 200 | OG | SER | 1028 | 37.126 | 62.560 | -12.075 | 1.00 | 66.52 | heav | O |
| ATOM | 201 | C | SER | 1028 | 37.231 | 61.549 | -9.584 | 1.00 | 32.77 | heav | O |
| ATOM | 202 | O | SER | 1028 | 37.389 | 62.472 | -8.780 | 1.00 | 66.52 | heav | O |
| ATOM | 203 | N | ILE | 1029 | 38.151 | 60.673 | -9.999 | 1.00 | 26.14 | heav | O |
| ATOM | 204 | CA | ILE | 1029 | 39.541 | 60.733 | -9.614 | 1.00 | 26.14 | heav | O |
| ATOM | 205 | CB | ILE | 1029 | 40.382 | 59.835 | -10.498 | 1.00 | 40.76 | heav | O |
| ATOM | 206 | CG2 | ILE | 1029 | 41.864 | 60.086 | -10.255 | 1.00 | 40.76 | heav | O |
| ATOM | 207 | CG1 | ILE | 1029 | 40.071 | 58.425 | -10.226 | 1.00 | 40.76 | heav | O |
| ATOM | 208 | CD1 | ILE | 1029 | 40.849 | 57.570 | -11.256 | 1.00 | 40.76 | heav | O |
| ATOM | 209 | C | ILE | 1029 | 40.059 | 62.176 | -9.803 | 1.00 | 26.14 | heav | O |
| ATOM | 210 | O | ILE | 1029 | 40.734 | 62.699 | -8.900 | 1.00 | 40.76 | heav | O |
| ATOM | 211 | N | THR | 1030 | 39.743 | 62.827 | -10.954 | 1.00 | 48.89 | heav | O |
| ATOM | 212 | CA | THR | 1030 | 40.285 | 64.132 | -11.327 | 1.00 | 48.89 | heav | O |

| ATOM | 213 | CB | THR | 1030 | 40.457 | 64.198 | -12.884 | 1.00 | 50.80 | heav | 0 |
|------|-----|-----|-----|------|--------|--------|---------|------|-------|------|---|
| ATOM | 214 | OG1 | THR | 1030 | 39.307 | 63.614 | -13.487 | 1.00 | 50.80 | heav | 0 |
| ATOM | 215 | CG2 | THR | 1030 | 41.642 | 63.394 | -13.387 | 1.00 | 50.80 | heav | 0 |
| ATOM | 216 | C | THR | 1030 | 39.578 | 65.395 | -10.873 | 1.00 | 48.89 | heav | 0 |
| ATOM | 217 | O | THR | 1030 | 40.001 | 66.463 | -11.338 | 1.00 | 50.80 | heav | 0 |
| ATOM | 218 | N | ARG | 1031 | 38.540 | 65.400 | -10.003 | 1.00 | 17.91 | heav | 0 |
| ATOM | 219 | CA | ARG | 1031 | 38.020 | 66.690 | -9.551 | 1.00 | 17.91 | heav | 0 |
| ATOM | 220 | CB | ARG | 1031 | 36.862 | 66.582 | -8.586 | 1.00 | 66.82 | heav | 0 |
| ATOM | 221 | CG | ARG | 1031 | 35.808 | 67.508 | -9.184 | 1.00 | 66.82 | heav | 0 |
| ATOM | 222 | CD | ARG | 1031 | 34.646 | 67.952 | -8.294 | 1.00 | 66.82 | heav | 0 |
| ATOM | 223 | NE | ARG | 1031 | 35.066 | 69.045 | -7.418 | 1.00 | 66.82 | heav | 0 |
| ATOM | 224 | CZ | ARG | 1031 | 34.334 | 69.480 | -6.363 | 1.00 | 66.82 | heav | 0 |
| ATOM | 225 | NH1 | ARG | 1031 | 33.147 | 68.925 | -6.053 | 1.00 | 66.82 | heav | 0 |
| ATOM | 226 | NH2 | ARG | 1031 | 34.821 | 70.468 | -5.580 | 1.00 | 66.82 | heav | 0 |
| ATOM | 227 | C | ARG | 1031 | 39.203 | 67.316 | -8.836 | 1.00 | 17.91 | heav | 0 |
| ATOM | 228 | O | ARG | 1031 | 40.018 | 66.631 | -8.194 | 1.00 | 66.82 | heav | 0 |
| ATOM | 229 | N | THR | 1032 | 39.394 | 68.608 | -9.002 | 1.00 | 2.00 | heav | 0 |
| ATOM | 230 | CA | THR | 1032 | 40.587 | 69.151 | -8.417 | 1.00 | 2.00 | heav | 0 |
| ATOM | 231 | CB | THR | 1032 | 40.842 | 70.597 | -8.958 | 1.00 | 39.87 | heav | 0 |
| ATOM | 232 | OG1 | THR | 1032 | 40.178 | 71.544 | -8.133 | 1.00 | 39.87 | heav | 0 |
| ATOM | 233 | CG2 | THR | 1032 | 40.366 | 70.726 | -10.407 | 1.00 | 39.87 | heav | 0 |
| ATOM | 234 | C | THR | 1032 | 40.504 | 69.134 | -6.904 | 1.00 | 2.00 | heav | 0 |
| ATOM | 235 | O | THR | 1032 | 39.440 | 69.201 | -6.285 | 1.00 | 39.87 | heav | 0 |
| ATOM | 236 | N | ASN | 1033 | 41.722 | 69.112 | -6.374 | 1.00 | 57.95 | heav | 0 |
| ATOM | 237 | CA | ASN | 1033 | 42.109 | 69.165 | -4.966 | 1.00 | 57.95 | heav | 0 |
| ATOM | 238 | CB | ASN | 1033 | 41.178 | 69.986 | -4.104 | 1.00 | 56.35 | heav | 0 |
| ATOM | 239 | CG | ASN | 1033 | 40.897 | 71.344 | -4.713 | 1.00 | 56.35 | heav | 0 |
| ATOM | 240 | OD1 | ASN | 1033 | 41.773 | 71.995 | -5.298 | 1.00 | 56.35 | heav | 0 |
| ATOM | 241 | ND2 | ASN | 1033 | 39.624 | 71.729 | -4.637 | 1.00 | 56.35 | heav | 0 |
| ATOM | 242 | C | ASN | 1033 | 42.212 | 67.850 | -4.240 | 1.00 | 57.95 | heav | 0 |
| ATOM | 243 | O | ASN | 1033 | 42.918 | 67.745 | -3.238 | 1.00 | 56.35 | heav | 0 |
| ATOM | 244 | N | TYR | 1034 | 41.488 | 66.849 | -4.676 | 1.00 | 33.81 | heav | 0 |
| ATOM | 245 | CA | TYR | 1034 | 41.490 | 65.569 | -4.028 | 1.00 | 33.81 | heav | 0 |
| ATOM | 246 | CB | TYR | 1034 | 40.307 | 64.799 | -4.469 | 1.00 | 55.62 | heav | 0 |
| ATOM | 247 | CG | TYR | 1034 | 39.110 | 65.509 | -3.878 | 1.00 | 55.62 | heav | 0 |
| ATOM | 248 | CD1 | TYR | 1034 | 38.598 | 66.674 | -4.410 | 1.00 | 55.62 | heav | 0 |
| ATOM | 249 | CE1 | TYR | 1034 | 37.490 | 67.280 | -3.848 | 1.00 | 55.62 | heav | 0 |
| ATOM | 250 | CD2 | TYR | 1034 | 38.514 | 64.961 | -2.790 | 1.00 | 55.62 | heav | 0 |
| ATOM | 251 | CE2 | TYR | 1034 | 37.409 | 65.552 | -2.229 | 1.00 | 55.62 | heav | 0 |
| ATOM | 252 | CZ | TYR | 1034 | 36.887 | 66.705 | -2.753 | 1.00 | 55.62 | heav | 0 |
| ATOM | 253 | OH | TYR | 1034 | 35.731 | 67.235 | -2.203 | 1.00 | 55.62 | heav | 0 |
| ATOM | 254 | C | TYR | 1034 | 42.736 | 64.844 | -4.396 | 1.00 | 33.81 | heav | 0 |
| ATOM | 255 | O | TYR | 1034 | 43.225 | 64.990 | -5.513 | 1.00 | 55.62 | heav | 0 |
| ATOM | 256 | N | CYS | 1035 | 43.330 | 64.162 | -3.431 | 1.00 | 42.62 | heav | 0 |
| ATOM | 257 | CA | CYS | 1035 | 44.452 | 63.274 | -3.702 | 1.00 | 42.62 | heav | 0 |
| ATOM | 258 | C | CYS | 1035 | 43.920 | 61.923 | -3.253 | 1.00 | 42.62 | heav | 0 |
| ATOM | 259 | O | CYS | 1035 | 43.114 | 61.876 | -2.322 | 1.00 | 15.84 | heav | 0 |
| ATOM | 260 | CB | CYS | 1035 | 45.675 | 63.674 | -2.891 | 1.00 | 15.84 | heav | 0 |
| ATOM | 261 | SG | CYS | 1035 | 46.626 | 65.177 | -3.275 | 1.00 | 15.84 | heav | 0 |
| ATOM | 262 | N | TRP | 1036 | 44.290 | 60.798 | -3.844 | 1.00 | 2.00 | heav | 0 |
| ATOM | 263 | CA | TRP | 1036 | 43.691 | 59.495 | -3.510 | 1.00 | 2.00 | heav | 0 |
| ATOM | 264 | CB | TRP | 1036 | 43.142 | 58.934 | -4.811 | 1.00 | 2.00 | heav | 0 |
| ATOM | 265 | CG | TRP | 1036 | 42.060 | 59.911 | -5.291 | 1.00 | 2.00 | heav | 0 |
| ATOM | 266 | CD2 | TRP | 1036 | 40.734 | 59.746 | -5.055 | 1.00 | 2.00 | heav | 0 |
| ATOM | 267 | CE2 | TRP | 1036 | 40.197 | 60.904 | -5.616 | 1.00 | 2.00 | heav | 0 |
| ATOM | 268 | CE3 | TRP | 1036 | 39.992 | 58.782 | -4.460 | 1.00 | 2.00 | heav | 0 |
| ATOM | 269 | CD1 | TRP | 1036 | 42.325 | 61.111 | -5.971 | 1.00 | 2.00 | heav | 0 |
| ATOM | 270 | NE1 | TRP | 1036 | 41.158 | 61.699 | -6.145 | 1.00 | 2.00 | heav | 0 |
| ATOM | 271 | CZ2 | TRP | 1036 | 38.852 | 61.117 | -5.594 | 1.00 | 2.00 | heav | 0 |
| ATOM | 272 | CZ3 | TRP | 1036 | 38.649 | 58.992 | -4.432 | 1.00 | 2.00 | heav | 0 |
| ATOM | 273 | CH2 | TRP | 1036 | 38.101 | 60.133 | -4.990 | 1.00 | 2.00 | heav | 0 |
| ATOM | 274 | C | TRP | 1036 | 44.759 | 58.640 | -2.874 | 1.00 | 2.00 | heav | 0 |
| ATOM | 275 | O | TRP | 1036 | 45.861 | 58.550 | -3.423 | 1.00 | 2.00 | heav | 0 |
| ATOM | 276 | N | HIS | 1037 | 44.557 | 58.168 | -1.647 | 1.00 | 2.00 | heav | 0 |
| ATOM | 277 | CA | HIS | 1037 | 45.610 | 57.433 | -0.970 | 1.00 | 2.00 | heav | 0 |
| ATOM | 278 | CB | HIS | 1037 | 45.787 | 57.765 | 0.399 | 1.00 | 2.00 | heav | 0 |
| ATOM | 279 | CG | HIS | 1037 | 46.163 | 59.178 | 0.589 | 1.00 | 2.00 | heav | 0 |

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|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 280 | CD2 | HIS | 1037 | 45.280 | 60.164 | 0.348 | 1.00 | 2.00 | heav | O |
| ATOM | 281 | ND1 | HIS | 1037 | 47.312 | 59.694 | 1.059 | 1.00 | 2.00 | heav | O |
| ATOM | 282 | CE1 | HIS | 1037 | 47.141 | 60.977 | 1.122 | 1.00 | 2.00 | heav | O |
| ATOM | 283 | NE2 | HIS | 1037 | 45.923 | 61.225 | 0.693 | 1.00 | 2.00 | heav | O |
| ATOM | 284 | C | HIS | 1037 | 45.425 | 55.957 | -0.839 | 1.00 | 2.00 | heav | O |
| ATOM | 285 | O | HIS | 1037 | 44.272 | 55.567 | -1.003 | 1.00 | 2.00 | heav | O |
| ATOM | 286 | N | TRP | 1038 | 46.490 | 55.192 | -0.486 | 1.00 | 2.00 | heav | O |
| ATOM | 287 | CA | TRP | 1038 | 46.445 | 53.776 | -0.086 | 1.00 | 2.00 | heav | O |
| ATOM | 288 | CB | TRP | 1038 | 47.300 | 52.884 | -0.949 | 1.00 | 2.00 | heav | O |
| ATOM | 289 | CG | TRP | 1038 | 46.738 | 52.483 | -2.307 | 1.00 | 2.00 | heav | O |
| ATOM | 290 | CD2 | TRP | 1038 | 45.732 | 51.573 | -2.570 | 1.00 | 2.00 | heav | O |
| ATOM | 291 | CE2 | TRP | 1038 | 45.629 | 51.661 | -3.957 | 1.00 | 2.00 | heav | O |
| ATOM | 292 | CE3 | TRP | 1038 | 44.915 | 50.726 | -1.878 | 1.00 | 2.00 | heav | O |
| ATOM | 293 | CD1 | TRP | 1038 | 47.214 | 53.067 | -3.457 | 1.00 | 2.00 | heav | O |
| ATOM | 294 | NE1 | TRP | 1038 | 46.500 | 52.541 | -4.440 | 1.00 | 2.00 | heav | O |
| ATOM | 295 | CZ2 | TRP | 1038 | 44.742 | 50.935 | -4.686 | 1.00 | 2.00 | heav | O |
| ATOM | 296 | CZ3 | TRP | 1038 | 44.005 | 49.983 | -2.594 | 1.00 | 2.00 | heav | O |
| ATOM | 297 | CH2 | TRP | 1038 | 43.919 | 50.084 | -3.966 | 1.00 | 2.00 | heav | O |
| ATOM | 298 | C | TRP | 1038 | 47.055 | 53.701 | 1.319 | 1.00 | 2.00 | heav | O |
| ATOM | 299 | O | TRP | 1038 | 48.143 | 54.298 | 1.632 | 1.00 | 2.00 | heav | O |
| ATOM | 300 | N | ILE | 1039 | 46.279 | 52.986 | 2.149 | 1.00 | 2.00 | heav | O |
| ATOM | 301 | CA | ILE | 1039 | 46.639 | 52.709 | 3.537 | 1.00 | 2.00 | heav | O |
| ATOM | 302 | CB | ILE | 1039 | 45.792 | 53.493 | 4.458 | 1.00 | 2.00 | heav | O |
| ATOM | 303 | CG2 | ILE | 1039 | 46.157 | 53.218 | 5.911 | 1.00 | 2.00 | heav | O |
| ATOM | 304 | CG1 | ILE | 1039 | 45.996 | 54.937 | 4.114 | 1.00 | 2.00 | heav | O |
| ATOM | 305 | CD1 | ILE | 1039 | 44.672 | 55.575 | 4.387 | 1.00 | 2.00 | heav | d |
| ATOM | 306 | C | ILE | 1039 | 46.392 | 51.262 | 3.842 | 1.00 | 2.00 | heav | O |
| ATOM | 307 | O | ILE | 1039 | 45.321 | 50.727 | 3.554 | 1.00 | 2.00 | heav | O |
| ATOM | 308 | N | ARG | 1040 | 47.321 | 50.681 | 4.551 | 1.00 | 2.00 | heav | O |
| ATOM | 309 | CA | ARG | 1040 | 47.318 | 49.252 | 4.837 | 1.00 | 2.00 | heav | O |
| ATOM | 310 | CB | ARG | 1040 | 48.581 | 48.812 | 4.099 | 1.00 | 19.66 | heav | O |
| ATOM | 311 | CG | ARG | 1040 | 49.257 | 47.496 | 4.174 | 1.00 | 19.66 | heav | O |
| ATOM | 312 | CD | ARG | 1040 | 50.474 | 47.457 | 5.059 | 1.00 | 19.66 | heav | O |
| ATOM | 313 | NE | ARG | 1040 | 51.828 | 47.573 | 4.517 | 1.00 | 19.66 | heav | O |
| ATOM | 314 | CZ | ARG | 1040 | 52.498 | 46.653 | 3.817 | 1.00 | 19.66 | heav | O |
| ATOM | 315 | NH1 | ARG | 1040 | 52.026 | 45.480 | 3.468 | 1.00 | 19.66 | heav | O |
| ATOM | 316 | NH2 | ARG | 1040 | 53.766 | 46.854 | 3.567 | 1.00 | 19.66 | heav | O |
| ATOM | 317 | C | ARG | 1040 | 47.292 | 49.084 | 6.359 | 1.00 | 2.00 | heav | O |
| ATOM | 318 | O | ARG | 1040 | 47.706 | 50.011 | 7.057 | 1.00 | 19.66 | heav | O |
| ATOM | 319 | N | GLN | 1041 | 46.791 | 48.047 | 7.001 | 1.00 | 2.00 | heav | O |
| ATOM | 320 | CA | GLN | 1041 | 46.952 | 47.895 | 8.435 | 1.00 | 2.00 | heav | O |
| ATOM | 321 | CB | GLN | 1041 | 45.719 | 48.316 | 9.152 | 1.00 | 2.00 | heav | O |
| ATOM | 322 | CG | GLN | 1041 | 45.397 | 47.706 | 10.483 | 1.00 | 2.00 | heav | O |
| ATOM | 323 | CD | GLN | 1041 | 44.142 | 48.315 | 11.053 | 1.00 | 2.00 | heav | O |
| ATOM | 324 | OE1 | GLN | 1041 | 43.038 | 48.272 | 10.503 | 1.00 | 2.00 | heav | O |
| ATOM | 325 | NE2 | GLN | 1041 | 44.229 | 48.934 | 12.190 | 1.00 | 2.00 | heav | O |
| ATOM | 326 | C | GLN | 1041 | 47.150 | 46.402 | 8.565 | 1.00 | 2.00 | heav | O |
| ATOM | 327 | O | GLN | 1041 | 46.258 | 45.599 | 8.212 | 1.00 | 2.00 | heav | O |
| ATOM | 328 | N | ALA | 1042 | 48.402 | 46.083 | 8.977 | 1.00 | 10.15 | heav | O |
| ATOM | 329 | CA | ALA | 1042 | 48.845 | 44.713 | 9.204 | 1.00 | 10.15 | heav | O |
| ATOM | 330 | CB | ALA | 1042 | 50.271 | 44.781 | 9.556 | 1.00 | 2.00 | heav | O |
| ATOM | 331 | C | ALA | 1042 | 48.027 | 44.168 | 10.380 | 1.00 | 10.15 | heav | O |
| ATOM | 332 | O | ALA | 1042 | 47.903 | 44.995 | 11.274 | 1.00 | 2.00 | heav | O |
| ATOM | 333 | N | PRO | 1043 | 47.432 | 42.962 | 10.557 | 1.00 | 18.11 | heav | O |
| ATOM | 334 | CD | PRO | 1043 | 47.970 | 41.731 | 10.015 | 1.00 | 34.16 | heav | O |
| ATOM | 335 | CA | PRO | 1043 | 46.547 | 42.580 | 11.674 | 1.00 | 18.11 | heav | O |
| ATOM | 336 | CB | PRO | 1043 | 46.390 | 41.095 | 11.605 | 1.00 | 34.16 | heav | O |
| ATOM | 337 | CG | PRO | 1043 | 46.845 | 40.756 | 10.227 | 1.00 | 34.16 | heav | O |
| ATOM | 338 | C | PRO | 1043 | 47.085 | 42.982 | 13.056 | 1.00 | 18.11 | heav | O |
| ATOM | 339 | O | PRO | 1043 | 48.311 | 42.949 | 13.297 | 1.00 | 34.16 | heav | O |
| ATOM | 340 | N | GLY | 1044 | 46.180 | 43.453 | 13.931 | 1.00 | 41.26 | heav | O |
| ATOM | 341 | CA | GLY | 1044 | 46.561 | 43.893 | 15.275 | 1.00 | 41.26 | heav | O |
| ATOM | 342 | C | GLY | 1044 | 47.644 | 44.981 | 15.347 | 1.00 | 41.26 | heav | O |
| ATOM | 343 | O | GLY | 1044 | 48.339 | 45.106 | 16.357 | 1.00 | 37.31 | heav | O |
| ATOM | 344 | N | LYS | 1045 | 47.843 | 45.776 | 14.295 | 1.00 | 2.00 | heav | O |
| ATOM | 345 | CA | LYS | 1045 | 48.778 | 46.873 | 14.330 | 1.00 | 2.00 | heav | O |
| ATOM | 346 | CB | LYS | 1045 | 49.990 | 46.611 | 13.465 | 1.00 | 40.76 | heav | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 347 | CG | LYS | 1045 | 50.862 | 45.460 | 13.848 | 1.00 | 40.76 | heav | O |
| ATOM | 348 | CD | LYS | 1045 | 52.201 | 46.001 | 13.393 | 1.00 | 40.76 | heav | O |
| ATOM | 349 | CE | LYS | 1045 | 53.157 | 44.895 | 12.956 | 1.00 | 40.76 | heav | O |
| ATOM | 350 | NZ | LYS | 1045 | 53.231 | 43.812 | 13.926 | 1.00 | 40.76 | heav | O |
| ATOM | 351 | C | LYS | 1045 | 48.093 | 48.127 | 13.834 | 1.00 | 2.00 | heav | O |
| ATOM | 352 | O | LYS | 1045 | 46.873 | 48.173 | 13.671 | 1.00 | 40.76 | heav | O |
| ATOM | 353 | N | GLY | 1046 | 48.881 | 49.163 | 13.592 | 1.00 | 30.06 | heav | O |
| ATOM | 354 | CA | GLY | 1046 | 48.359 | 50.462 | 13.233 | 1.00 | 30.06 | heav | O |
| ATOM | 355 | C | GLY | 1046 | 48.214 | 50.653 | 11.760 | 1.00 | 30.06 | heav | O |
| ATOM | 356 | O | GLY | 1046 | 48.598 | 49.814 | 10.958 | 1.00 | 7.98 | heav | O |
| ATOM | 357 | N | LEU | 1047 | 47.556 | 51.743 | 11.428 | 1.00 | 12.94 | heav | O |
| ATOM | 358 | CA | LEU | 1047 | 47.391 | 52.111 | 10.036 | 1.00 | 12.94 | heav | O |
| ATOM | 359 | CB | LEU | 1047 | 46.583 | 53.348 | 9.901 | 1.00 | 2.00 | heav | O |
| ATOM | 360 | CG | LEU | 1047 | 45.300 | 53.199 | 10.641 | 1.00 | 2.00 | heav | O |
| ATOM | 361 | CD1 | LEU | 1047 | 44.819 | 54.557 | 11.108 | 1.00 | 2.00 | heav | O |
| ATOM | 362 | CD2 | LEU | 1047 | 44.319 | 52.474 | 9.754 | 1.00 | 2.00 | heav | O |
| ATOM | 363 | C | LEU | 1047 | 48.771 | 52.439 | 9.531 | 1.00 | 12.94 | heav | O |
| ATOM | 364 | O | LEU | 1047 | 49.509 | 52.994 | 10.326 | 1.00 | 2.00 | heav | O |
| ATOM | 365 | N | GLU | 1048 | 49.226 | 52.091 | 8.337 | 1.00 | 2.00 | heav | O |
| ATOM | 366 | CA | GLU | 1048 | 50.427 | 52.681 | 7.773 | 1.00 | 2.00 | heav | O |
| ATOM | 367 | CB | GLU | 1048 | 51.553 | 51.710 | 7.845 | 1.00 | 35.86 | heav | O |
| ATOM | 368 | CG | GLU | 1048 | 51.620 | 50.546 | 6.896 | 1.00 | 35.86 | heav | O |
| ATOM | 369 | CD | GLU | 1048 | 52.948 | 49.820 | 7.109 | 1.00 | 35.86 | heav | O |
| ATOM | 370 | OE1 | GLU | 1048 | 53.948 | 50.216 | 6.461 | 1.00 | 35.86 | heav | O |
| ATOM | 371 | OE2 | GLU | 1048 | 52.957 | 48.896 | 7.956 | 1.00 | 35.86 | heav | O |
| ATOM | 372 | C | GLU | 1048 | 50.145 | 53.097 | 6.309 | 1.00 | 2.00 | heav | O |
| ATOM | 373 | O | GLU | 1048 | 49.400 | 52.505 | 5.503 | 1.00 | 35.86 | heav | O |
| ATOM | 374 | N | TRP | 1049 | 50.650 | 54.314 | 6.126 | 1.00 | 2.00 | heav | O |
| ATOM | 375 | CA | TRP | 1049 | 50.443 | 55.073 | 4.910 | 1.00 | 2.00 | heav | O |
| ATOM | 376 | CB | TRP | 1049 | 50.850 | 56.505 | 5.078 | 1.00 | 2.00 | heav | O |
| ATOM | 377 | CG | TRP | 1049 | 50.353 | 57.306 | 3.922 | 1.00 | 2.00 | heav | O |
| ATOM | 378 | CD2 | TRP | 1049 | 51.163 | 57.883 | 3.032 | 1.00 | 2.00 | heav | O |
| ATOM | 379 | CE2 | TRP | 1049 | 50.255 | 58.446 | 2.152 | 1.00 | 2.00 | heav | O |
| ATOM | 380 | CE3 | TRP | 1049 | 52.527 | 57.941 | 2.924 | 1.00 | 2.00 | heav | O |
| ATOM | 381 | CD1 | TRP | 1049 | 49.037 | 57.475 | 3.659 | 1.00 | 2.00 | heav | O |
| ATOM | 382 | NE1 | TRP | 1049 | 49.011 | 58.175 | 2.561 | 1.00 | 2.00 | heav | O |
| ATOM | 383 | CZ2 | TRP | 1049 | 50.774 | 59.121 | 1.094 | 1.00 | 2.00 | heav | O |
| ATOM | 384 | CZ3 | TRP | 1049 | 53.042 | 58.615 | 1.854 | 1.00 | 2.00 | heav | O |
| ATOM | 385 | CH2 | TRP | 1049 | 52.169 | 59.196 | 0.962 | 1.00 | 2.00 | heav | O |
| ATOM | 386 | C | TRP | 1049 | 51.279 | 54.503 | 3.829 | 1.00 | 2.00 | heav | O |
| ATOM | 387 | O | TRP | 1049 | 52.401 | 54.112 | 4.144 | 1.00 | 2.00 | heav | O |
| ATOM | 388 | N | MET | 1050 | 50.789 | 54.462 | 2.597 | 1.00 | 2.00 | heav | O |
| ATOM | 389 | CA | MET | 1050 | 51.664 | 53.828 | 1.656 | 1.00 | 2.00 | heav | O |
| ATOM | 390 | CB | MET | 1050 | 51.062 | 52.599 | 1.081 | 1.00 | 2.00 | heav | O |
| ATOM | 391 | CG | MET | 1050 | 50.976 | 51.534 | 2.153 | 1.00 | 2.00 | heav | O |
| ATOM | 392 | SD | MET | 1050 | 50.163 | 50.126 | 1.358 | 1.00 | 2.00 | heav | O |
| ATOM | 393 | CE | MET | 1050 | 51.608 | 49.076 | 1.484 | 1.00 | 2.00 | heav | O |
| ATOM | 394 | C | MET | 1050 | 52.060 | 54.691 | 0.528 | 1.00 | 2.00 | heav | O |
| ATOM | 395 | O | MET | 1050 | 53.173 | 54.489 | 0.009 | 1.00 | 2.00 | heav | O |
| ATOM | 396 | N | GLY | 1051 | 51.143 | 55.606 | 0.220 | 1.00 | 23.56 | heav | O |
| ATOM | 397 | CA | GLY | 1051 | 51.349 | 56.485 | -0.898 | 1.00 | 23.56 | heav | O |
| ATOM | 398 | C | GLY | 1051 | 50.044 | 57.131 | -1.300 | 1.00 | 23.56 | heav | O |
| ATOM | 399 | O | GLY | 1051 | 49.008 | 56.690 | -0.767 | 1.00 | 22.91 | heav | O |
| ATOM | 400 | N | ARG | 1052 | 50.108 | 58.240 | -2.085 | 1.00 | 2.00 | heav | O |
| ATOM | 401 | CA | ARG | 1052 | 48.928 | 58.938 | -2.646 | 1.00 | 2.00 | heav | O |
| ATOM | 402 | CB | ARG | 1052 | 48.571 | 60.301 | -2.017 | 1.00 | 2.00 | heav | O |
| ATOM | 403 | CG | ARG | 1052 | 49.663 | 61.319 | -2.172 | 1.00 | 2.00 | heav | O |
| ATOM | 404 | CD | ARG | 1052 | 49.412 | 62.701 | -1.541 | 1.00 | 2.00 | heav | O |
| ATOM | 405 | NE | ARG | 1052 | 50.644 | 63.410 | -1.954 | 1.00 | 2.00 | heav | O |
| ATOM | 406 | CZ | ARG | 1052 | 51.430 | 64.031 | -1.042 | 1.00 | 2.00 | heav | O |
| ATOM | 407 | NH1 | ARG | 1052 | 51.085 | 64.044 | 0.251 | 1.00 | 2.00 | heav | O |
| ATOM | 408 | NH2 | ARG | 1052 | 52.638 | 64.538 | -1.345 | 1.00 | 2.00 | heav | O |
| ATOM | 409 | C | ARG | 1052 | 49.162 | 59.299 | -4.083 | 1.00 | 2.00 | heav | O |
| ATOM | 410 | O | ARG | 1052 | 50.302 | 59.461 | -4.520 | 1.00 | 2.00 | heav | O |
| ATOM | 411 | N | ILE | 1053 | 48.084 | 59.473 | -4.801 | 1.00 | 8.01 | heav | O |
| ATOM | 412 | CA | ILE | 1053 | 48.165 | 59.930 | -6.159 | 1.00 | 8.01 | heav | O |
| ATOM | 413 | CB | ILE | 1053 | 47.875 | 58.696 | -7.035 | 1.00 | 12.85 | heav | O |

| ATOM | 414 | CG2 | ILE | 1053 | 46.706 | 57.827 | -6.632 | 1.00 | 12.85 | heav | 0 |
| ATOM | 415 | CG1 | ILE | 1053 | 47.626 | 59.260 | -8.389 | 1.00 | 12.85 | heav | 0 |
| ATOM | 416 | CD1 | ILE | 1053 | 47.712 | 58.118 | -9.417 | 1.00 | 12.85 | heav | 0 |
| ATOM | 417 | C | ILE | 1053 | 47.163 | 61.066 | -6.249 | 1.00 | 8.01 | heav | 0 |
| ATOM | 418 | O | ILE | 1053 | 45.958 | 60.857 | -6.092 | 1.00 | 12.85 | heav | 0 |
| ATOM | 419 | N | CYS | 1054 | 47.606 | 62.305 | -6.386 | 1.00 | 10.52 | heav | 0 |
| ATOM | 420 | CA | CYS | 1054 | 46.705 | 63.444 | -6.409 | 1.00 | 10.52 | heav | 0 |
| ATOM | 421 | C | CYS | 1054 | 45.952 | 63.600 | -7.698 | 1.00 | 19.18 | heav | 0 |
| ATOM | 422 | O | CYS | 1054 | 46.578 | 63.390 | -8.712 | 1.00 | 19.18 | heav | 0 |
| ATOM | 423 | CB | CYS | 1054 | 47.492 | 64.671 | -6.130 | 1.00 | 19.18 | heav | 0 |
| ATOM | 424 | SG | CYS | 1054 | 48.043 | 64.354 | -4.458 | 1.00 | 19.18 | heav | 0 |
| ATOM | 425 | N | TYR | 1055 | 44.679 | 63.980 | -7.707 | 1.00 | 50.31 | heav | 0 |
| ATOM | 426 | CA | TYR | 1055 | 43.820 | 64.180 | -8.873 | 1.00 | 50.31 | heav | 0 |
| ATOM | 427 | CB | TYR | 1055 | 42.784 | 65.273 | -8.590 | 1.00 | 52.92 | heav | 0 |
| ATOM | 428 | CG | TYR | 1055 | 43.332 | 66.686 | -8.711 | 1.00 | 52.92 | heav | 0 |
| ATOM | 429 | CD1 | TYR | 1055 | 43.058 | 67.386 | -9.850 | 1.00 | 52.92 | heav | 0 |
| ATOM | 430 | CE1 | TYR | 1055 | 43.567 | 68.642 | -10.029 | 1.00 | 52.92 | heav | 0 |
| ATOM | 431 | CD2 | TYR | 1055 | 44.121 | 67.245 | -7.736 | 1.00 | 52.92 | heav | 0 |
| ATOM | 432 | CE2 | TYR | 1055 | 44.634 | 68.505 | -7.904 | 1.00 | 52.92 | heav | 0 |
| ATOM | 433 | CZ | TYR | 1055 | 44.348 | 69.190 | -9.056 | 1.00 | 52.92 | heav | 0 |
| ATOM | 434 | OH | TYR | 1055 | 44.835 | 70.452 | -9.278 | 1.00 | 52.92 | heav | 0 |
| ATOM | 435 | C | TYR | 1055 | 44.496 | 64.541 | -10.179 | 1.00 | 50.31 | heav | 0 |
| ATOM | 436 | O | TYR | 1055 | 44.100 | 64.100 | -11.238 | 1.00 | 52.92 | heav | 0 |
| ATOM | 437 | N | GLU | 1056 | 45.474 | 65.413 | -10.173 | 1.00 | 2.00 | heav | 0 |
| ATOM | 438 | CA | GLU | 1056 | 46.195 | 65.660 | -11.394 | 1.00 | 2.00 | heav | 0 |
| ATOM | 439 | CB | GLU | 1056 | 46.586 | 67.100 | -11.430 | 1.00 | 26.63 | heav | 0 |
| ATOM | 440 | CG | GLU | 1056 | 47.159 | 67.682 | -10.172 | 1.00 | 26.63 | heav | 0 |
| ATOM | 441 | CD | GLU | 1056 | 48.381 | 67.008 | -9.622 | 1.00 | 26.63 | heav | 0 |
| ATOM | 442 | OE1 | GLU | 1056 | 48.241 | 65.979 | -8.961 | 1.00 | 26.63 | heav | 0 |
| ATOM | 443 | OE2 | GLU | 1056 | 49.456 | 67.539 | -9.878 | 1.00 | 26.63 | heav | 0 |
| ATOM | 444 | C | GLU | 1056 | 47.439 | 64.786 | -11.576 | 1.00 | 2.00 | heav | 0 |
| ATOM | 445 | O | GLU | 1056 | 48.468 | 65.297 | -11.990 | 1.00 | 26.63 | heav | 0 |
| ATOM | 446 | N | GLY | 1057 | 47.513 | 63.529 | -11.161 | 1.00 | 2.00 | heav | 0 |
| ATOM | 447 | CA | GLY | 1057 | 48.674 | 62.682 | -11.402 | 1.00 | 2.00 | heav | 0 |
| ATOM | 448 | C | GLY | 1057 | 49.889 | 62.795 | -10.501 | 1.00 | 2.00 | heav | 0 |
| ATOM | 449 | O | GLY | 1057 | 50.718 | 61.908 | -10.670 | 1.00 | 2.00 | heav | 0 |
| ATOM | 450 | N | SER | 1058 | 50.164 | 63.735 | -9.576 | 1.00 | 2.00 | heav | 0 |
| ATOM | 451 | CA | SER | 1058 | 51.392 | 63.674 | -8.747 | 1.00 | 2.00 | heav | 0 |
| ATOM | 452 | CB | SER | 1058 | 51.612 | 64.917 | -7.898 | 1.00 | 19.19 | heav | 0 |
| ATOM | 453 | OG | SER | 1058 | 51.420 | 66.083 | -8.668 | 1.00 | 19.19 | heav | 0 |
| ATOM | 454 | C | SER | 1058 | 51.269 | 62.503 | -7.783 | 1.00 | 2.00 | heav | 0 |
| ATOM | 455 | O | SER | 1058 | 50.200 | 62.312 | -7.194 | 1.00 | 19.19 | heav | 0 |
| ATOM | 456 | N | ILE | 1059 | 52.322 | 61.703 | -7.658 | 1.00 | 2.00 | heav | 0 |
| ATOM | 457 | CA | ILE | 1059 | 52.360 | 60.456 | -6.900 | 1.00 | 2.00 | heav | 0 |
| ATOM | 458 | CB | ILE | 1059 | 52.894 | 59.356 | -7.832 | 1.00 | 15.91 | heav | 0 |
| ATOM | 459 | CG2 | ILE | 1059 | 53.242 | 58.122 | -7.033 | 1.00 | 15.91 | heav | 0 |
| ATOM | 460 | CG1 | ILE | 1059 | 51.876 | 59.145 | -8.972 | 1.00 | 15.91 | heav | 0 |
| ATOM | 461 | CD1 | ILE | 1059 | 52.159 | 58.150 | -10.129 | 1.00 | 15.91 | heav | 0 |
| ATOM | 462 | C | ILE | 1059 | 53.287 | 60.678 | -5.745 | 1.00 | 2.00 | heav | 0 |
| ATOM | 463 | O | ILE | 1059 | 54.234 | 61.467 | -5.856 | 1.00 | 15.91 | heav | 0 |
| ATOM | 464 | N | TYR | 1060 | 53.071 | 60.006 | -4.643 | 1.00 | 20.58 | heav | 0 |
| ATOM | 465 | CA | TYR | 1060 | 54.050 | 60.095 | -3.604 | 1.00 | 20.58 | heav | 0 |
| ATOM | 466 | CB | TYR | 1060 | 53.779 | 61.224 | -2.673 | 1.00 | 36.93 | heav | 0 |
| ATOM | 467 | CG | TYR | 1060 | 54.972 | 61.301 | -1.750 | 1.00 | 36.93 | heav | 0 |
| ATOM | 468 | CD1 | TYR | 1060 | 54.780 | 61.627 | -0.456 | 1.00 | 36.93 | heav | 0 |
| ATOM | 469 | CE1 | TYR | 1060 | 55.835 | 61.692 | 0.421 | 1.00 | 36.93 | heav | 0 |
| ATOM | 470 | CD2 | TYR | 1060 | 56.251 | 61.036 | -2.170 | 1.00 | 36.93 | heav | 0 |
| ATOM | 471 | CE2 | TYR | 1060 | 57.310 | 61.094 | -1.296 | 1.00 | 36.93 | heav | 0 |
| ATOM | 472 | CZ | TYR | 1060 | 57.100 | 61.434 | 0.008 | 1.00 | 36.93 | heav | 0 |
| ATOM | 473 | OH | TYR | 1060 | 58.168 | 61.548 | 0.876 | 1.00 | 36.93 | heav | 0 |
| ATOM | 474 | C | TYR | 1060 | 54.002 | 58.824 | -2.834 | 1.00 | 20.58 | heav | 0 |
| ATOM | 475 | O | TYR | 1060 | 52.870 | 58.442 | -2.507 | 1.00 | 36.93 | heav | 0 |
| ATOM | 476 | N | TYR | 1061 | 55.210 | 58.254 | -2.550 | 1.00 | 2.00 | heav | 0 |
| ATOM | 477 | CA | TYR | 1061 | 55.298 | 56.954 | -1.876 | 1.00 | 2.00 | heav | 0 |
| ATOM | 478 | CB | TYR | 1061 | 56.119 | 55.945 | -2.637 | 1.00 | 2.00 | heav | 0 |
| ATOM | 479 | CG | TYR | 1061 | 55.759 | 55.598 | -4.088 | 1.00 | 2.00 | heav | 0 |
| ATOM | 480 | CD1 | TYR | 1061 | 55.194 | 54.388 | -4.374 | 1.00 | 2.00 | heav | 0 |

| ATOM | 481 | CE1 | TYR | 1061 | 54.996 | 54.023 | -5.684 | 1.00 | 2.00 | heav | O |
|------|-----|-----|-----|------|--------|--------|--------|------|------|------|---|
| ATOM | 482 | CD2 | TYR | 1061 | 56.105 | 56.446 | -5.130 | 1.00 | 2.00 | heav | O |
| ATOM | 483 | CE2 | TYR | 1061 | 55.910 | 56.093 | -6.444 | 1.00 | 2.00 | heav | O |
| ATOM | 484 | CZ | TYR | 1061 | 55.343 | 54.865 | -6.723 | 1.00 | 2.00 | heav | O |
| ATOM | 485 | OH | TYR | 1061 | 55.078 | 54.474 | -8.043 | 1.00 | 2.00 | heav | O |
| ATOM | 486 | C | TYR | 1061 | 55.963 | 56.994 | -0.520 | 1.00 | 2.00 | heav | O |
| ATOM | 487 | O | TYR | 1061 | 56.936 | 57.737 | -0.386 | 1.00 | 2.00 | heav | O |
| ATOM | 488 | N | SER | 1062 | 55.527 | 56.193 | 0.456 | 1.00 | 2.00 | heav | O |
| ATOM | 489 | CA | SER | 1062 | 56.278 | 56.009 | 1.705 | 1.00 | 2.00 | heav | O |
| ATOM | 490 | CB | SER | 1062 | 55.713 | 54.944 | 2.612 | 1.00 | 37.95 | heav | O |
| ATOM | 491 | OG | SER | 1062 | 54.306 | 55.159 | 2.579 | 1.00 | 37.95 | heav | O |
| ATOM | 492 | C | SER | 1062 | 57.603 | 55.497 | 1.292 | 1.00 | 2.00 | heav | O |
| ATOM | 493 | O | SER | 1062 | 57.659 | 54.575 | 0.467 | 1.00 | 37.95 | heav | O |
| ATOM | 494 | N | PRO | 1063 | 58.712 | 56.025 | 1.787 | 1.00 | 9.61 | heav | O |
| ATOM | 495 | CD | PRO | 1063 | 58.787 | 57.314 | 2.427 | 1.00 | 2.00 | heav | O |
| ATOM | 496 | CA | PRO | 1063 | 59.993 | 55.303 | 1.776 | 1.00 | 9.61 | heav | O |
| ATOM | 497 | CB | PRO | 1063 | 60.860 | 56.186 | 2.557 | 1.00 | 2.00 | heav | O |
| ATOM | 498 | CG | PRO | 1063 | 59.893 | 57.014 | 3.367 | 1.00 | 2.00 | heav | O |
| ATOM | 499 | C | PRO | 1063 | 59.661 | 53.973 | 2.424 | 1.00 | 9.61 | heav | O |
| ATOM | 500 | O | PRO | 1063 | 58.828 | 53.994 | 3.326 | 1.00 | 2.00 | heav | O |
| ATOM | 501 | N | SER | 1064 | 60.132 | 52.834 | 1.945 | 1.00 | 2.00 | heav | O |
| ATOM | 502 | CA | SER | 1064 | 59.889 | 51.449 | 2.399 | 1.00 | 2.00 | heav | O |
| ATOM | 503 | CB | SER | 1064 | 59.089 | 51.249 | 3.707 | 1.00 | 36.62 | heav | O |
| ATOM | 504 | OG | SER | 1064 | 57.739 | 51.650 | 3.671 | 1.00 | 36.62 | heav | O |
| ATOM | 505 | C | SER | 1064 | 59.079 | 50.874 | 1.266 | 1.00 | 2.00 | heav | O |
| ATOM | 506 | O | SER | 1064 | 59.482 | 49.870 | 0.675 | 1.00 | 36.62 | heav | O |
| ATOM | 507 | N | ILE | 1065 | 58.014 | 51.522 | 0.812 | 1.00 | 2.00 | heav | O |
| ATOM | 508 | CA | ILE | 1065 | 57.386 | 51.003 | -0.364 | 1.00 | 2.00 | heav | O |
| ATOM | 509 | CB | ILE | 1065 | 55.909 | 51.344 | -0.234 | 1.00 | 2.00 | heav | O |
| ATOM | 510 | CG2 | ILE | 1065 | 55.187 | 52.175 | -1.264 | 1.00 | 2.00 | heav | O |
| ATOM | 511 | CG1 | ILE | 1065 | 55.411 | 49.943 | -0.258 | 1.00 | 2.00 | heav | O |
| ATOM | 512 | CD1 | ILE | 1065 | 55.928 | 49.072 | 0.926 | 1.00 | 2.00 | heav | O |
| ATOM | 513 | C | ILE | 1065 | 58.086 | 51.540 | -1.589 | 1.00 | 2.00 | heav | O |
| ATOM | 514 | O | ILE | 1065 | 58.182 | 50.769 | -2.540 | 1.00 | 2.00 | heav | O |
| ATOM | 515 | N | LYS | 1066 | 58.763 | 52.703 | -1.529 | 1.00 | 2.00 | heav | O |
| ATOM | 516 | CA | LYS | 1066 | 59.229 | 53.375 | -2.728 | 1.00 | 2.00 | heav | O |
| ATOM | 517 | CB | LYS | 1066 | 60.132 | 54.500 | -2.318 | 1.00 | 58.55 | heav | O |
| ATOM | 518 | CG | LYS | 1066 | 60.403 | 55.432 | -3.483 | 1.00 | 58.55 | heav | O |
| ATOM | 519 | CD | LYS | 1066 | 60.498 | 56.869 | -2.988 | 1.00 | 58.55 | heav | O |
| ATOM | 520 | CE | LYS | 1066 | 61.612 | 57.679 | -3.676 | 1.00 | 58.55 | heav | O |
| ATOM | 521 | NZ | LYS | 1066 | 62.847 | 57.724 | -2.877 | 1.00 | 58.55 | heav | O |
| ATOM | 522 | C | LYS | 1066 | 59.912 | 52.543 | -3.815 | 1.00 | 2.00 | heav | O |
| ATOM | 523 | O | LYS | 1066 | 59.572 | 52.618 | -5.000 | 1.00 | 58.55 | heav | O |
| ATOM | 524 | N | SER | 1067 | 60.786 | 51.635 | -3.434 | 1.00 | 2.00 | heav | O |
| ATOM | 525 | CA | SER | 1067 | 61.517 | 50.880 | -4.432 | 1.00 | 2.00 | heav | O |
| ATOM | 526 | CB | SER | 1067 | 62.943 | 50.789 | -3.973 | 1.00 | 23.56 | heav | O |
| ATOM | 527 | OG | SER | 1067 | 62.975 | 50.372 | -2.612 | 1.00 | 23.56 | heav | O |
| ATOM | 528 | C | SER | 1067 | 60.949 | 49.518 | -4.688 | 1.00 | 2.00 | heav | O |
| ATOM | 529 | O | SER | 1067 | 61.647 | 48.627 | -5.140 | 1.00 | 23.56 | heav | O |
| ATOM | 530 | N | ARG | 1068 | 59.688 | 49.328 | -4.362 | 1.00 | 2.00 | heav | O |
| ATOM | 531 | CA | ARG | 1068 | 59.017 | 48.091 | -4.665 | 1.00 | 2.00 | heav | O |
| ATOM | 532 | CB | ARG | 1068 | 59.221 | 47.057 | -3.577 | 1.00 | 23.36 | heav | O |
| ATOM | 533 | CG | ARG | 1068 | 58.869 | 47.294 | -2.156 | 1.00 | 23.36 | heav | O |
| ATOM | 534 | CD | ARG | 1068 | 58.678 | 45.858 | -1.663 | 1.00 | 23.36 | heav | O |
| ATOM | 535 | NE | ARG | 1068 | 58.033 | 45.820 | -0.361 | 1.00 | 23.36 | heav | O |
| ATOM | 536 | CZ | ARG | 1068 | 57.118 | 44.902 | -0.014 | 1.00 | 23.36 | heav | O |
| ATOM | 537 | NH1 | ARG | 1068 | 56.690 | 43.922 | -0.816 | 1.00 | 23.36 | heav | O |
| ATOM | 538 | NH2 | ARG | 1068 | 56.631 | 44.964 | 1.222 | 1.00 | 23.36 | heav | O |
| ATOM | 539 | C | ARG | 1068 | 57.553 | 48.382 | -4.825 | 1.00 | 2.00 | heav | O |
| ATOM | 540 | O | ARG | 1068 | 56.683 | 47.566 | -4.547 | 1.00 | 23.36 | heav | O |
| ATOM | 541 | N | SER | 1069 | 57.287 | 49.511 | -5.456 | 1.00 | 2.00 | heav | O |
| ATOM | 542 | CA | SER | 1069 | 55.951 | 49.999 | -5.546 | 1.00 | 2.00 | heav | O |
| ATOM | 543 | CB | SER | 1069 | 55.780 | 50.888 | -4.420 | 1.00 | 2.00 | heav | O |
| ATOM | 544 | OG | SER | 1069 | 54.414 | 50.908 | -4.119 | 1.00 | 2.00 | heav | O |
| ATOM | 545 | C | SER | 1069 | 55.714 | 50.741 | -6.817 | 1.00 | 2.00 | heav | O |
| ATOM | 546 | O | SER | 1069 | 56.599 | 51.370 | -7.378 | 1.00 | 2.00 | heav | O |
| ATOM | 547 | N | THR | 1070 | 54.471 | 50.744 | -7.209 | 1.00 | 2.00 | heav | O |

| ATOM | 548 | CA | THR | 1070 | 54.091 | 51.523 | -8.348 | 1.00 | 2.00 | heav | O |
|------|-----|------|-----|------|--------|--------|---------|------|-------|------|---|
| ATOM | 549 | CB | THR | 1070 | 54.369 | 50.803 | -9.628 | 1.00 | 19.94 | heav | O |
| ATOM | 550 | OG1 | THR | 1070 | 55.744 | 50.994 | -9.877 | 1.00 | 19.94 | heav | O |
| ATOM | 551 | CG2 | THR | 1070 | 53.666 | 51.367 | -10.801 | 1.00 | 19.94 | heav | O |
| ATOM | 552 | C | THR | 1070 | 52.630 | 51.765 | -8.207 | 1.00 | 2.00 | heav | O |
| ATOM | 553 | O | THR | 1070 | 51.763 | 50.872 | -8.029 | 1.00 | 19.94 | heav | O |
| ATOM | 554 | N | ILE | 1071 | 52.448 | 53.071 | -8.108 | 1.00 | 2.00 | heav | O |
| ATOM | 555 | CA | ILE | 1071 | 51.086 | 53.543 | -8.005 | 1.00 | 2.00 | heav | O |
| ATOM | 556 | CB | ILE | 1071 | 51.173 | 54.591 | -6.892 | 1.00 | 36.83 | heav | O |
| ATOM | 557 | CG2 | ILE | 1071 | 49.954 | 55.465 | -6.917 | 1.00 | 36.83 | heav | O |
| ATOM | 558 | CG1 | ILE | 1071 | 51.279 | 53.897 | -5.540 | 1.00 | 36.83 | heav | O |
| ATOM | 559 | CD1 | ILE | 1071 | 51.683 | 54.841 | -4.391 | 1.00 | 36.83 | heav | O |
| ATOM | 560 | C | ILE | 1071 | 50.609 | 54.040 | -9.380 | 1.00 | 2.00 | heav | O |
| ATOM | 561 | O | ILE | 1071 | 51.224 | 54.968 | -9.886 | 1.00 | 36.83 | heav | O |
| ATOM | 562 | N | SER | 1072 | 49.638 | 53.532 | -10.117 | 1.00 | 2.00 | heav | O |
| ATOM | 563 | CA | SER | 1072 | 49.283 | 54.137 | -11.385 | 1.00 | 2.00 | heav | O |
| ATOM | 564 | CB | SER | 1072 | 49.716 | 53.234 | -12.512 | 1.00 | 31.22 | heav | O |
| ATOM | 565 | OG | SER | 1072 | 49.312 | 51.883 | -12.321 | 1.00 | 31.22 | heav | O |
| ATOM | 566 | C | SER | 1072 | 47.782 | 54.279 | -11.347 | 1.00 | 2.00 | heav | O |
| ATOM | 567 | O | SER | 1072 | 47.131 | 53.625 | -10.511 | 1.00 | 31.22 | heav | O |
| ATOM | 568 | N | ARG | 1073 | 47.182 | 55.116 | -12.198 | 1.00 | 2.00 | heav | O |
| ATOM | 569 | CA | ARG | 1073 | 45.722 | 55.255 | -12.221 | 1.00 | 2.00 | heav | O |
| ATOM | 570 | CB | ARG | 1073 | 45.322 | 56.675 | -11.900 | 1.00 | 41.67 | heav | O |
| ATOM | 571 | CG | ARG | 1073 | 45.927 | 57.710 | -12.815 | 1.00 | 41.67 | heav | O |
| ATOM | 572 | CD | ARG | 1073 | 45.219 | 59.028 | -12.625 | 1.00 | 41.67 | heav | O |
| ATOM | 573 | NE | ARG | 1073 | 45.854 | 60.010 | -13.474 | 1.00 | 41.67 | heav | O |
| ATOM | 574 | CZ | ARG | 1073 | 45.781 | 61.319 | -13.233 | 1.00 | 41.67 | heav | O |
| ATOM | 575 | NH1 | ARG | 1073 | 45.114 | 61.833 | -12.211 | 1.00 | 41.67 | heav | O |
| ATOM | 576 | NH2 | ARG | 1073 | 46.480 | 62.143 | -13.998 | 1.00 | 41.67 | heav | O |
| ATOM | 577 | C | ARG | 1073 | 45.160 | 54.896 | -13.582 | 1.00 | 2.00 | heav | O |
| ATOM | 578 | O | ARG | 1073 | 45.928 | 54.524 | -14.473 | 1.00 | 41.67 | heav | O |
| ATOM | 579 | N | ASP | 1074 | 43.843 | 54.999 | -13.756 | 1.00 | 26.18 | heav | O |
| ATOM | 580 | CA | ASP | 1074 | 43.190 | 54.834 | -15.056 | 1.00 | 26.18 | heav | O |
| ATOM | 581 | CB | ASP | 1074 | 42.756 | 53.399 | -15.281 | 1.00 | 58.13 | heav | O |
| ATOM | 582 | CG | ASP | 1074 | 42.482 | 53.175 | -16.762 | 1.00 | 58.13 | heav | O |
| ATOM | 583 | OD1 | ASP | 1074 | 41.350 | 53.423 | -17.192 | 1.00 | 58.13 | heav | O |
| ATOM | 584 | OD2 | ASP | 1074 | 43.407 | 52.762 | -17.478 | 1.00 | 58.13 | heav | O |
| ATOM | 585 | C | ASP | 1074 | 41.948 | 55.751 | -15.091 | 1.00 | 26.18 | heav | O |
| ATOM | 586 | O | ASP | 1074 | 40.783 | 55.453 | -14.762 | 1.00 | 58.13 | heav | O |
| ATOM | 587 | N | THR | 1075 | 42.295 | 56.925 | -15.605 | 1.00 | 26.29 | heav | O |
| ATOM | 588 | CA | THR | 1075 | 41.459 | 58.110 | -15.651 | 1.00 | 26.29 | heav | O |
| ATOM | 589 | CB | THR | 1075 | 42.226 | 59.192 | -16.406 | 1.00 | 66.80 | heav | O |
| ATOM | 590 | OG1 | THR | 1075 | 43.613 | 58.821 | -16.539 | 1.00 | 66.80 | heav | O |
| ATOM | 591 | CG2 | THR | 1075 | 42.093 | 60.482 | -15.646 | 1.00 | 66.80 | heav | O |
| ATOM | 592 | C | THR | 1075 | 40.127 | 57.839 | -16.287 | 1.00 | 26.29 | heav | O |
| ATOM | 593 | O | THR | 1075 | 39.115 | 58.288 | -15.780 | 1.00 | 66.80 | heav | O |
| ATOM | 594 | N | SER | 1076 | 40.105 | 56.999 | -17.323 | 1.00 | 46.28 | heav | O |
| ATOM | 595 | CA | SER | 1076 | 38.862 | 56.683 | -18.000 | 1.00 | 46.28 | heav | O |
| ATOM | 596 | CB | SER | 1076 | 39.137 | 56.048 | -19.340 | 1.00 | 35.32 | heav | O |
| ATOM | 597 | OG | SER | 1076 | 39.768 | 54.780 | -19.227 | 1.00 | 35.32 | heav | O |
| ATOM | 598 | C | SER | 1076 | 37.968 | 55.753 | -17.219 | 1.00 | 46.28 | heav | O |
| ATOM | 599 | O | SER | 1076 | 36.768 | 55.807 | -17.375 | 1.00 | 35.32 | heav | O |
| ATOM | 600 | N | LEU | 1077 | 38.504 | 54.873 | -16.393 | 1.00 | 19.57 | heav | O |
| ATOM | 601 | CA | LEU | 1077 | 37.670 | 53.930 | -15.627 | 1.00 | 19.57 | heav | O |
| ATOM | 602 | CB | LEU | 1077 | 38.388 | 52.594 | -15.449 | 1.00 | 56.89 | heav | O |
| ATOM | 603 | CG | LEU | 1077 | 38.616 | 51.688 | -16.648 | 1.00 | 56.89 | heav | O |
| ATOM | 604 | CD1 | LEU | 1077 | 39.204 | 50.336 | -16.221 | 1.00 | 56.89 | heav | O |
| ATOM | 605 | CD2 | LEU | 1077 | 37.272 | 51.457 | -17.328 | 1.00 | 56.89 | heav | O |
| ATOM | 606 | C | LEU | 1077 | 37.248 | 54.385 | -14.244 | 1.00 | 19.57 | heav | O |
| ATOM | 607 | O | LEU | 1077 | 36.342 | 53.878 | -13.583 | 1.00 | 56.89 | heav | O |
| ATOM | 608 | N | ASN | 1078 | 38.071 | 55.329 | -13.833 | 1.00 | 24.97 | heav | O |
| ATOM | 609 | CA | ASN | 1078 | 37.917 | 55.978 | -12.573 | 1.00 | 24.97 | heav | O |
| ATOM | 610 | CB | ASN | 1078 | 36.505 | 56.944 | -12.416 | 1.00 | 43.84 | heav | O |
| ATOM | 611 | CG | ASN | 1078 | 36.479 | 57.719 | -11.459 | 1.00 | 43.84 | heav | O |
| ATOM | 612 | OD1 | ASN | 1078 | 37.001 | 58.813 | -11.729 | 1.00 | 43.84 | heav | O |
| ATOM | 613 | ND2 | ASN | 1078 | 35.864 | 57.519 | -10.300 | 1.00 | 43.84 | heav | O |
| ATOM | 614 | C | ASN | 1078 | 38.208 | 54.975 | -11.489 | 1.00 | 24.97 | heav | O |

| ATOM | 615 | O   | ASN | 1078 | 37.382 | 54.691 | -10.611 | 1.00 | 43.84 | heav | O |
|------|-----|-----|-----|------|--------|--------|---------|------|-------|------|---|
| ATOM | 616 | N   | LYS | 1079 | 39.465 | 54.476 | -11.600 | 1.00 | 2.00  | heav | O |
| ATOM | 617 | CA  | LYS | 1079 | 40.088 | 53.607 | -10.574 | 1.00 | 2.00  | heav | O |
| ATOM | 618 | CB  | LYS | 1079 | 39.775 | 52.120 | -10.851 | 1.00 | 25.31 | heav | O |
| ATOM | 619 | CG  | LYS | 1079 | 40.168 | 51.875 | -12.243 | 1.00 | 25.31 | heav | O |
| ATOM | 620 | CD  | LYS | 1079 | 40.100 | 50.453 | -12.576 | 1.00 | 25.31 | heav | O |
| ATOM | 621 | CE  | LYS | 1079 | 38.646 | 49.983 | -12.618 | 1.00 | 25.31 | heav | O |
| ATOM | 622 | NZ  | LYS | 1079 | 38.631 | 48.625 | -13.184 | 1.00 | 25.31 | heav | O |
| ATOM | 623 | C   | LYS | 1079 | 41.603 | 53.808 | -10.491 | 1.00 | 2.00  | heav | O |
| ATOM | 624 | O   | LYS | 1079 | 42.222 | 54.272 | -11.455 | 1.00 | 25.31 | heav | O |
| ATOM | 625 | N   | PHE | 1080 | 42.219 | 53.574 | -9.343  | 1.00 | 19.73 | heav | O |
| ATOM | 626 | CA  | PHE | 1080 | 43.667 | 53.620 | -9.214  | 1.00 | 19.73 | heav | O |
| ATOM | 627 | CB  | PHE | 1080 | 44.126 | 54.743 | -8.325  | 1.00 | 2.00  | heav | O |
| ATOM | 628 | CG  | PHE | 1080 | 43.448 | 54.924 | -7.008  | 1.00 | 2.00  | heav | O |
| ATOM | 629 | CD1 | PHE | 1080 | 44.200 | 54.882 | -5.873  | 1.00 | 2.00  | heav | O |
| ATOM | 630 | CD2 | PHE | 1080 | 42.103 | 55.175 | -6.938  | 1.00 | 2.00  | heav | O |
| ATOM | 631 | CE1 | PHE | 1080 | 43.595 | 55.101 | -4.660  | 1.00 | 2.00  | heav | O |
| ATOM | 632 | CE2 | PHE | 1080 | 41.501 | 55.391 | -5.724  | 1.00 | 2.00  | heav | O |
| ATOM | 633 | CZ  | PHE | 1080 | 42.247 | 55.353 | -4.584  | 1.00 | 2.00  | heav | O |
| ATOM | 634 | C   | PHE | 1080 | 44.204 | 52.318 | -8.644  | 1.00 | 19.73 | heav | O |
| ATOM | 635 | O   | PHE | 1080 | 43.388 | 51.513 | -8.113  | 1.00 | 2.00  | heav | O |
| ATOM | 636 | N   | PHE | 1081 | 45.541 | 52.083 | -8.776  | 1.00 | 2.00  | heav | O |
| ATOM | 637 | CA  | PHE | 1081 | 46.085 | 50.796 | -8.340  | 1.00 | 2.00  | heav | O |
| ATOM | 638 | CB  | PHE | 1081 | 46.488 | 49.902 | -9.506  | 1.00 | 25.42 | heav | O |
| ATOM | 639 | CG  | PHE | 1081 | 45.628 | 50.090 | -10.725 | 1.00 | 25.42 | heav | O |
| ATOM | 640 | CD1 | PHE | 1081 | 45.933 | 51.089 | -11.622 | 1.00 | 25.42 | heav | O |
| ATOM | 641 | CD2 | PHE | 1081 | 44.514 | 49.311 | -10.918 | 1.00 | 25.42 | heav | O |
| ATOM | 642 | CE1 | PHE | 1081 | 45.102 | 51.300 | -12.694 | 1.00 | 25.42 | heav | O |
| ATOM | 643 | CE2 | PHE | 1081 | 43.690 | 49.535 | -12.007 | 1.00 | 25.42 | heav | O |
| ATOM | 644 | CZ  | PHE | 1081 | 43.980 | 50.530 | -12.892 | 1.00 | 25.42 | heav | O |
| ATOM | 645 | C   | PHE | 1081 | 47.327 | 50.932 | -7.491  | 1.00 | 2.00  | heav | O |
| ATOM | 646 | O   | PHE | 1081 | 47.893 | 52.009 | -7.297  | 1.00 | 25.42 | heav | O |
| ATOM | 647 | N   | ILE | 1082 | 47.778 | 49.800 | -7.011  | 1.00 | 2.00  | heav | O |
| ATOM | 648 | CA  | ILE | 1082 | 49.088 | 49.764 | -6.448  | 1.00 | 2.00  | heav | O |
| ATOM | 649 | CB  | ILE | 1082 | 49.039 | 50.125 | -4.976  | 1.00 | 8.94  | heav | O |
| ATOM | 650 | CG2 | ILE | 1082 | 48.051 | 49.235 | -4.252  | 1.00 | 8.94  | heav | O |
| ATOM | 651 | CG1 | ILE | 1082 | 50.450 | 50.076 | -4.439  | 1.00 | 8.94  | heav | O |
| ATOM | 652 | CD1 | ILE | 1082 | 50.530 | 50.788 | -3.106  | 1.00 | 8.94  | heav | O |
| ATOM | 653 | C   | ILE | 1082 | 49.613 | 48.361 | -6.652  | 1.00 | 2.00  | heav | O |
| ATOM | 654 | O   | ILE | 1082 | 48.873 | 47.366 | -6.613  | 1.00 | 8.94  | heav | O |
| ATOM | 655 | N   | GLN | 1083 | 50.893 | 48.345 | -6.975  | 1.00 | 2.00  | heav | O |
| ATOM | 656 | CA  | GLN | 1083 | 51.638 | 47.126 | -7.082  | 1.00 | 2.00  | heav | O |
| ATOM | 657 | CB  | GLN | 1083 | 52.270 | 47.010 | -8.451  | 1.00 | 24.06 | heav | O |
| ATOM | 658 | CG  | GLN | 1083 | 53.269 | 45.847 | -8.520  | 1.00 | 24.06 | heav | O |
| ATOM | 659 | CD  | GLN | 1083 | 53.956 | 45.598 | -9.843  | 1.00 | 24.06 | heav | O |
| ATOM | 660 | OE1 | GLN | 1083 | 54.968 | 46.189 | -10.173 | 1.00 | 24.06 | heav | O |
| ATOM | 661 | NE2 | GLN | 1083 | 53.485 | 44.670 | -10.659 | 1.00 | 24.06 | heav | O |
| ATOM | 662 | C   | GLN | 1083 | 52.747 | 47.138 | -6.031  | 1.00 | 2.00  | heav | O |
| ATOM | 663 | O   | GLN | 1083 | 53.550 | 48.089 | -5.918  | 1.00 | 24.06 | heav | O |
| ATOM | 664 | N   | LEU | 1084 | 52.748 | 46.009 | -5.338  | 1.00 | 2.00  | heav | O |
| ATOM | 665 | CA  | LEU | 1084 | 53.705 | 45.671 | -4.330  | 1.00 | 2.00  | heav | O |
| ATOM | 666 | CB  | LEU | 1084 | 52.904 | 45.406 | -3.094  | 1.00 | 2.00  | heav | O |
| ATOM | 667 | CG  | LEU | 1084 | 53.025 | 46.366 | -1.972  | 1.00 | 2.00  | heav | O |
| ATOM | 668 | CD1 | LEU | 1084 | 54.272 | 46.100 | -1.196  | 1.00 | 2.00  | heav | O |
| ATOM | 669 | CD2 | LEU | 1084 | 53.138 | 47.743 | -2.507  | 1.00 | 2.00  | heav | O |
| ATOM | 670 | C   | LEU | 1084 | 54.430 | 44.443 | -4.878  | 1.00 | 2.00  | heav | O |
| ATOM | 671 | O   | LEU | 1084 | 53.845 | 43.381 | -5.095  | 1.00 | 2.00  | heav | O |
| ATOM | 672 | N   | ILE | 1085 | 55.689 | 44.626 | -5.223  | 1.00 | 2.00  | heav | O |
| ATOM | 673 | CA  | ILE | 1085 | 56.559 | 43.608 | -5.770  | 1.00 | 2.00  | heav | O |
| ATOM | 674 | CB  | ILE | 1085 | 57.609 | 44.418 | -6.623  | 1.00 | 21.54 | heav | O |
| ATOM | 675 | CG2 | ILE | 1085 | 59.046 | 44.007 | -6.611  | 1.00 | 21.54 | heav | O |
| ATOM | 676 | CG1 | ILE | 1085 | 57.091 | 44.275 | -8.006  | 1.00 | 21.54 | heav | O |
| ATOM | 677 | CD1 | ILE | 1085 | 56.936 | 42.829 | -8.521  | 1.00 | 21.54 | heav | O |
| ATOM | 678 | C   | ILE | 1085 | 57.090 | 42.830 | -4.580  | 1.00 | 2.00  | heav | O |
| ATOM | 679 | O   | ILE | 1085 | 57.128 | 43.328 | -3.450  | 1.00 | 21.54 | heav | O |
| ATOM | 680 | N   | SER | 1086 | 57.417 | 41.568 | -4.866  | 1.00 | 25.74 | heav | O |
| ATOM | 681 | CA  | SER | 1086 | 57.990 | 40.594 | -3.925  | 1.00 | 25.74 | heav | O |

| ATOM | 682 | CB | SER | 1086 | 59.486 | 40.686 | -4.000 | 1.00 | 39.54 | heav | O |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 683 | OG | SER | 1086 | 59.892 | 41.992 | -3.617 | 1.00 | 39.54 | heav | O |
| ATOM | 684 | C | SER | 1086 | 57.549 | 40.713 | -2.485 | 1.00 | 25.74 | heav | O |
| ATOM | 685 | O | SER | 1086 | 58.257 | 41.177 | -1.586 | 1.00 | 39.54 | heav | O |
| ATOM | 686 | N | VAL | 1087 | 56.276 | 40.340 | -2.404 | 1.00 | 2.00 | heav | O |
| ATOM | 687 | CA | VAL | 1087 | 55.550 | 40.380 | -1.158 | 1.00 | 2.00 | heav | O |
| ATOM | 688 | CB | VAL | 1087 | 54.107 | 40.058 | -1.440 | 1.00 | 13.89 | heav | O |
| ATOM | 689 | CG1 | VAL | 1087 | 53.533 | 41.051 | -2.416 | 1.00 | 13.89 | heav | O |
| ATOM | 690 | CG2 | VAL | 1087 | 53.997 | 38.731 | -2.117 | 1.00 | 13.89 | heav | O |
| ATOM | 691 | C | VAL | 1087 | 56.142 | 39.380 | -0.176 | 1.00 | 2.00 | heav | O |
| ATOM | 692 | O | VAL | 1087 | 56.799 | 38.415 | -0.566 | 1.00 | 13.89 | heav | O |
| ATOM | 693 | N | THR | 1088 | 55.994 | 39.581 | 1.118 | 1.00 | 31.45 | heav | O |
| ATOM | 694 | CA | THR | 1088 | 56.426 | 38.621 | 2.107 | 1.00 | 31.45 | heav | O |
| ATOM | 695 | CB | THR | 1088 | 57.734 | 39.115 | 2.752 | 1.00 | 23.45 | heav | O |
| ATOM | 696 | OG1 | THR | 1088 | 57.372 | 40.196 | 3.584 | 1.00 | 23.45 | heav | O |
| ATOM | 697 | CG2 | THR | 1088 | 58.763 | 39.650 | 1.790 | 1.00 | 23.45 | heav | O |
| ATOM | 698 | C | THR | 1088 | 55.277 | 38.545 | 3.131 | 1.00 | 31.45 | heav | O |
| ATOM | 699 | O | THR | 1088 | 54.197 | 39.111 | 2.953 | 1.00 | 23.45 | heav | O |
| ATOM | 700 | N | ASN | 1089 | 55.466 | 37.981 | 4.317 | 1.00 | 31.45 | heav | O |
| ATOM | 701 | CA | ASN | 1089 | 54.380 | 37.893 | 5.277 | 1.00 | 31.45 | heav | O |
| ATOM | 702 | CB | ASN | 1089 | 54.717 | 37.031 | 6.483 | 1.00 | 77.42 | heav | O |
| ATOM | 703 | CG | ASN | 1089 | 54.985 | 35.603 | 6.071 | 1.00 | 77.42 | heav | O |
| ATOM | 704 | OD1 | ASN | 1089 | 56.157 | 35.254 | 5.962 | 1.00 | 77.42 | heav | O |
| ATOM | 705 | ND2 | ASN | 1089 | 54.012 | 34.753 | 5.757 | 1.00 | 77.42 | heav | O |
| ATOM | 706 | C | ASN | 1089 | 54.053 | 39.269 | 5.785 | 1.00 | 31.45 | heav | O |
| ATOM | 707 | O | ASN | 1089 | 52.901 | 39.530 | 6.110 | 1.00 | 77.42 | heav | O |
| ATOM | 708 | N | GLU | 1090 | 54.970 | 40.233 | 5.754 | 1.00 | 15.93 | heav | O |
| ATOM | 709 | CA | GLU | 1090 | 54.632 | 41.559 | 6.249 | 1.00 | 15.93 | heav | O |
| ATOM | 710 | CB | GLU | 1090 | 55.926 | 42.291 | 6.495 | 1.00 | 128.40 | heav | O |
| ATOM | 711 | CG | GLU | 1090 | 56.530 | 41.569 | 7.705 | 1.00 | 128.40 | heav | O |
| ATOM | 712 | CD | GLU | 1090 | 57.792 | 42.131 | 8.353 | 1.00 | 128.40 | heav | O |
| ATOM | 713 | OE1 | GLU | 1090 | 58.307 | 43.189 | 7.917 | 1.00 | 128.40 | heav | O |
| ATOM | 714 | OE2 | GLU | 1090 | 58.248 | 41.511 | 9.321 | 1.00 | 128.40 | heav | O |
| ATOM | 715 | C | GLU | 1090 | 53.713 | 42.324 | 5.316 | 1.00 | 15.93 | heav | O |
| ATOM | 716 | O | GLU | 1090 | 53.345 | 43.455 | 5.576 | 1.00 | 128.40 | heav | O |
| ATOM | 717 | N | ASP | 1091 | 53.352 | 41.722 | 4.186 | 1.00 | 2.00 | heav | O |
| ATOM | 718 | CA | ASP | 1091 | 52.447 | 42.338 | 3.274 | 1.00 | 2.00 | heav | O |
| ATOM | 719 | CB | ASP | 1091 | 52.965 | 41.982 | 1.925 | 1.00 | 15.58 | heav | O |
| ATOM | 720 | CG | ASP | 1091 | 54.180 | 42.847 | 1.700 | 1.00 | 15.58 | heav | O |
| ATOM | 721 | OD1 | ASP | 1091 | 54.034 | 44.055 | 1.843 | 1.00 | 15.58 | heav | O |
| ATOM | 722 | OD2 | ASP | 1091 | 55.260 | 42.351 | 1.423 | 1.00 | 15.58 | heav | O |
| ATOM | 723 | C | ASP | 1091 | 51.044 | 41.909 | 3.550 | 1.00 | 2.00 | heav | O |
| ATOM | 724 | O | ASP | 1091 | 50.089 | 42.413 | 2.977 | 1.00 | 15.58 | heav | O |
| ATOM | 725 | N | THR | 1092 | 50.913 | 40.994 | 4.509 | 1.00 | 2.00 | heav | O |
| ATOM | 726 | CA | THR | 1092 | 49.619 | 40.427 | 4.829 | 1.00 | 2.00 | heav | O |
| ATOM | 727 | CB | THR | 1092 | 49.825 | 39.100 | 5.552 | 1.00 | 33.62 | heav | O |
| ATOM | 728 | OG1 | THR | 1092 | 50.398 | 38.169 | 4.644 | 1.00 | 33.62 | heav | O |
| ATOM | 729 | CG2 | THR | 1092 | 48.530 | 38.492 | 5.971 | 1.00 | 33.62 | heav | O |
| ATOM | 730 | C | THR | 1092 | 48.950 | 41.468 | 5.692 | 1.00 | 2.00 | heav | O |
| ATOM | 731 | O | THR | 1092 | 49.426 | 41.782 | 6.789 | 1.00 | 33.62 | heav | O |
| ATOM | 732 | N | ALA | 1093 | 47.875 | 42.022 | 5.145 | 1.00 | 2.00 | heav | O |
| ATOM | 733 | CA | ALA | 1093 | 47.241 | 43.100 | 5.807 | 1.00 | 2.00 | heav | O |
| ATOM | 734 | CB | ALA | 1093 | 48.115 | 44.282 | 5.686 | 1.00 | 14.51 | heav | O |
| ATOM | 735 | C | ALA | 1093 | 45.890 | 43.434 | 5.228 | 1.00 | 2.00 | heav | O |
| ATOM | 736 | O | ALA | 1093 | 45.396 | 42.762 | 4.312 | 1.00 | 14.51 | heav | O |
| ATOM | 737 | N | MET | 1094 | 45.241 | 44.443 | 5.827 | 1.00 | 2.00 | heav | O |
| ATOM | 738 | CA | MET | 1094 | 44.059 | 44.980 | 5.250 | 1.00 | 2.00 | heav | O |
| ATOM | 739 | CB | MET | 1094 | 43.086 | 45.113 | 6.344 | 1.00 | 33.63 | heav | O |
| ATOM | 740 | CG | MET | 1094 | 41.805 | 45.638 | 5.706 | 1.00 | 33.63 | heav | O |
| ATOM | 741 | SD | MET | 1094 | 40.416 | 44.505 | 5.906 | 1.00 | 33.63 | heav | O |
| ATOM | 742 | CE | MET | 1094 | 40.149 | 45.062 | 7.579 | 1.00 | 33.63 | heav | O |
| ATOM | 743 | C | MET | 1094 | 44.454 | 46.320 | 4.590 | 1.00 | 2.00 | heav | O |
| ATOM | 744 | O | MET | 1094 | 45.233 | 47.155 | 5.053 | 1.00 | 33.63 | heav | O |
| ATOM | 745 | N | TYR | 1095 | 43.973 | 46.415 | 3.378 | 1.00 | 17.16 | heav | O |
| ATOM | 746 | CA | TYR | 1095 | 44.366 | 47.459 | 2.492 | 1.00 | 17.16 | heav | O |
| ATOM | 747 | CB | TYR | 1095 | 44.958 | 46.805 | 1.208 | 1.00 | 2.00 | heav | O |
| ATOM | 748 | CG | TYR | 1095 | 46.364 | 46.184 | 1.314 | 1.00 | 2.00 | heav | O |

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| ATOM | 749 | CD1 | TYR | 1095 | 46.533 | 44.945 | 1.901 | 1.00 | 2.00 | heav | O |
|------|-----|-----|-----|------|--------|--------|-------|------|-------|------|---|
| ATOM | 750 | CE1 | TYR | 1095 | 47.773 | 44.410 | 2.090 | 1.00 | 2.00 | heav | O |
| ATOM | 751 | CD2 | TYR | 1095 | 47.437 | 46.916 | 0.878 | 1.00 | 2.00 | heav | O |
| ATOM | 752 | CE2 | TYR | 1095 | 48.682 | 46.395 | 1.060 | 1.00 | 2.00 | heav | O |
| ATOM | 753 | CZ | TYR | 1095 | 48.843 | 45.152 | 1.665 | 1.00 | 2.00 | heav | O |
| ATOM | 754 | OH | TYR | 1095 | 50.119 | 44.671 | 1.906 | 1.00 | 2.00 | heav | O |
| ATOM | 755 | C | TYR | 1095 | 43.082 | 48.191 | 2.240 | 1.00 | 17.16 | heav | O |
| ATOM | 756 | O | TYR | 1095 | 42.046 | 47.586 | 1.936 | 1.00 | 2.00 | heav | O |
| ATOM | 757 | N | TYR | 1096 | 43.242 | 49.487 | 2.366 | 1.00 | 2.00 | heav | O |
| ATOM | 758 | CA | TYR | 1096 | 42.187 | 50.458 | 2.275 | 1.00 | 2.00 | heav | O |
| ATOM | 759 | CB | TYR | 1096 | 42.008 | 51.276 | 3.489 | 1.00 | 2.00 | heav | O |
| ATOM | 760 | CG | TYR | 1096 | 41.576 | 50.553 | 4.703 | 1.00 | 2.00 | heav | O |
| ATOM | 761 | CD1 | TYR | 1096 | 40.302 | 50.038 | 4.747 | 1.00 | 2.00 | heav | O |
| ATOM | 762 | CE1 | TYR | 1096 | 39.869 | 49.326 | 5.860 | 1.00 | 2.00 | heav | O |
| ATOM | 763 | CD2 | TYR | 1096 | 42.442 | 50.387 | 5.755 | 1.00 | 2.00 | heav | O |
| ATOM | 764 | CE2 | TYR | 1096 | 42.042 | 49.674 | 6.876 | 1.00 | 2.00 | heav | O |
| ATOM | 765 | CZ | TYR | 1096 | 40.767 | 49.157 | 6.894 | 1.00 | 2.00 | heav | O |
| ATOM | 766 | OH | TYR | 1096 | 40.388 | 48.371 | 7.935 | 1.00 | 2.00 | heav | O |
| ATOM | 767 | C | TYR | 1096 | 42.534 | 51.518 | 1.254 | 1.00 | 2.00 | heav | O |
| ATOM | 768 | O | TYR | 1096 | 43.749 | 51.811 | 1.186 | 1.00 | 2.00 | heav | O |
| ATOM | 769 | N | CYS | 1097 | 41.602 | 52.181 | 0.514 | 1.00 | 2.00 | heav | O |
| ATOM | 770 | CA | CYS | 1097 | 41.939 | 53.378 | -0.247 | 1.00 | 2.00 | heav | O |
| ATOM | 771 | C | CYS | 1097 | 41.048 | 54.452 | 0.344 | 1.00 | 2.00 | heav | O |
| ATOM | 772 | O | CYS | 1097 | 39.942 | 54.146 | 0.840 | 1.00 | 12.29 | heav | O |
| ATOM | 773 | CB | CYS | 1097 | 41.637 | 53.211 | -1.713 | 1.00 | 12.29 | heav | O |
| ATOM | 774 | SG | CYS | 1097 | 40.078 | 52.422 | -2.252 | 1.00 | 12.29 | heav | O |
| ATOM | 775 | N | SER | 1098 | 41.506 | 55.685 | 0.433 | 1.00 | 2.00 | heav | O |
| ATOM | 776 | CA | SER | 1098 | 40.617 | 56.707 | 0.907 | 1.00 | 2.00 | heav | O |
| ATOM | 777 | CB | SER | 1098 | 40.850 | 56.868 | 2.399 | 1.00 | 23.32 | heav | O |
| ATOM | 778 | OG | SER | 1098 | 42.087 | 57.473 | 2.670 | 1.00 | 23.32 | heav | O |
| ATOM | 779 | C | SER | 1098 | 40.827 | 58.010 | 0.130 | 1.00 | 2.00 | heav | O |
| ATOM | 780 | O | SER | 1098 | 41.692 | 58.099 | -0.760 | 1.00 | 23.32 | heav | O |
| ATOM | 781 | N | ARG | 1099 | 40.120 | 59.084 | 0.513 | 1.00 | 2.00 | heav | O |
| ATOM | 782 | CA | ARG | 1099 | 40.111 | 60.350 | -0.227 | 1.00 | 2.00 | heav | O |
| ATOM | 783 | CB | ARG | 1099 | 38.710 | 60.502 | -0.717 | 1.00 | 23.20 | heav | O |
| ATOM | 784 | CG | ARG | 1099 | 38.480 | 61.473 | -1.815 | 1.00 | 23.20 | heav | O |
| ATOM | 785 | CD | ARG | 1099 | 37.483 | 62.357 | -1.210 | 1.00 | 23.20 | heav | O |
| ATOM | 786 | NE | ARG | 1099 | 36.327 | 62.553 | -2.053 | 1.00 | 23.20 | heav | O |
| ATOM | 787 | CZ | ARG | 1099 | 35.240 | 63.034 | -1.457 | 1.00 | 23.20 | heav | O |
| ATOM | 788 | NH1 | ARG | 1099 | 35.239 | 63.349 | -0.154 | 1.00 | 23.20 | heav | O |
| ATOM | 789 | NH2 | ARG | 1099 | 34.083 | 63.080 | -2.106 | 1.00 | 23.20 | heav | O |
| ATOM | 790 | C | ARG | 1099 | 40.536 | 61.536 | 0.617 | 1.00 | 2.00 | heav | O |
| ATOM | 791 | O | ARG | 1099 | 40.180 | 61.572 | 1.801 | 1.00 | 23.20 | heav | O |
| ATOM | 792 | N | GLU | 1100 | 41.220 | 62.510 | 0.083 | 1.00 | 2.00 | heav | O |
| ATOM | 793 | CA | GLU | 1100 | 41.697 | 63.593 | 0.900 | 1.00 | 2.00 | heav | O |
| ATOM | 794 | CB | GLU | 1100 | 43.194 | 63.436 | 1.084 | 1.00 | 2.00 | heav | O |
| ATOM | 795 | CG | GLU | 1100 | 43.772 | 64.541 | 1.922 | 1.00 | 2.00 | heav | O |
| ATOM | 796 | CD | GLU | 1100 | 45.267 | 64.813 | 1.789 | 1.00 | 2.00 | heav | O |
| ATOM | 797 | OE1 | GLU | 1100 | 45.947 | 64.197 | 0.993 | 1.00 | 2.00 | heav | O |
| ATOM | 798 | OE2 | GLU | 1100 | 45.782 | 65.683 | 2.480 | 1.00 | 2.00 | heav | O |
| ATOM | 799 | C | GLU | 1100 | 41.387 | 64.907 | 0.191 | 1.00 | 2.00 | heav | O |
| ATOM | 800 | O | GLU | 1100 | 41.537 | 64.998 | -1.037 | 1.00 | 2.00 | heav | O |
| ATOM | 801 | N | ASN | 1101 | 40.974 | 65.977 | 0.866 | 1.00 | 2.00 | heav | O |
| ATOM | 802 | CA | ASN | 1101 | 40.837 | 67.234 | 0.162 | 1.00 | 2.00 | heav | O |
| ATOM | 803 | CB | ASN | 1101 | 39.762 | 68.066 | 0.723 | 1.00 | 54.32 | heav | O |
| ATOM | 804 | CG | ASN | 1101 | 39.466 | 69.220 | -0.191 | 1.00 | 54.32 | heav | O |
| ATOM | 805 | OD1 | ASN | 1101 | 38.339 | 69.365 | -0.652 | 1.00 | 54.32 | heav | O |
| ATOM | 806 | ND2 | ASN | 1101 | 40.430 | 70.055 | -0.563 | 1.00 | 54.32 | heav | O |
| ATOM | 807 | C | ASN | 1101 | 42.141 | 67.835 | 0.547 | 1.00 | 2.00 | heav | O |
| ATOM | 808 | O | ASN | 1101 | 42.356 | 68.183 | 1.717 | 1.00 | 54.32 | heav | O |
| ATOM | 809 | N | HIS | 1102 | 42.989 | 68.070 | -0.408 | 1.00 | 18.25 | heav | O |
| ATOM | 810 | CA | HIS | 1102 | 44.332 | 68.409 | -0.024 | 1.00 | 18.25 | heav | O |
| ATOM | 811 | CB | HIS | 1102 | 45.196 | 67.714 | -1.004 | 1.00 | 12.16 | heav | O |
| ATOM | 812 | CG | HIS | 1102 | 46.629 | 67.682 | -0.584 | 1.00 | 12.16 | heav | O |
| ATOM | 813 | CD2 | HIS | 1102 | 47.675 | 67.983 | -1.424 | 1.00 | 12.16 | heav | O |
| ATOM | 814 | ND1 | HIS | 1102 | 47.087 | 67.450 | 0.634 | 1.00 | 12.16 | heav | O |
| ATOM | 815 | CE1 | HIS | 1102 | 48.381 | 67.609 | 0.589 | 1.00 | 12.16 | heav | O |

| ATOM | 816 | NE2 | HIS | 1102 | 48.714 | 67.930 | -0.654 | 1.00 | 12.16 | heav | 0 |
|------|-----|-----|-----|------|--------|--------|--------|------|-------|------|---|
| ATOM | 817 | C | HIS | 1102 | 44.641 | 69.879 | 0.067 | 1.00 | 18.25 | heav | 0 |
| ATOM | 818 | O | HIS | 1102 | 45.723 | 70.297 | 0.479 | 1.00 | 12.16 | heav | 0 |
| ATOM | 819 | N | MET | 1103 | 43.674 | 70.616 | -0.459 | 1.00 | 36.42 | heav | 0 |
| ATOM | 820 | CA | MET | 1103 | 43.725 | 72.050 | -0.507 | 1.00 | 36.42 | heav | 0 |
| ATOM | 821 | CB | MET | 1103 | 43.096 | 72.406 | -1.861 | 1.00 | 49.03 | heav | 0 |
| ATOM | 822 | CG | MET | 1103 | 43.360 | 73.705 | -2.625 | 1.00 | 49.03 | heav | 0 |
| ATOM | 823 | SD | MET | 1103 | 44.998 | 73.950 | -3.349 | 1.00 | 49.03 | heav | 0 |
| ATOM | 824 | CE | MET | 1103 | 45.683 | 74.787 | -1.934 | 1.00 | 49.03 | heav | 0 |
| ATOM | 825 | C | MET | 1103 | 42.963 | 72.542 | 0.722 | 1.00 | 36.42 | heav | 0 |
| ATOM | 826 | O | MET | 1103 | 43.520 | 73.240 | 1.574 | 1.00 | 49.03 | heav | 0 |
| ATOM | 827 | N | TYR | 1104 | 41.707 | 72.189 | 0.944 | 1.00 | 49.38 | heav | 0 |
| ATOM | 828 | CA | TYR | 1104 | 41.075 | 72.822 | 2.093 | 1.00 | 49.38 | heav | 0 |
| ATOM | 829 | CB | TYR | 1104 | 39.666 | 73.254 | 1.692 | 1.00114.86 | heav | 0 |
| ATOM | 830 | CG | TYR | 1104 | 39.508 | 73.947 | 0.341 | 1.00114.86 | heav | 0 |
| ATOM | 831 | CD1 | TYR | 1104 | 40.053 | 75.198 | 0.166 | 1.00114.86 | heav | 0 |
| ATOM | 832 | CE1 | TYR | 1104 | 39.896 | 75.840 | -1.039 | 1.00114.86 | heav | 0 |
| ATOM | 833 | CD2 | TYR | 1104 | 38.780 | 73.348 | -0.694 | 1.00114.86 | heav | 0 |
| ATOM | 834 | CE2 | TYR | 1104 | 38.616 | 74.001 | -1.914 | 1.00114.86 | heav | 0 |
| ATOM | 835 | CZ | TYR | 1104 | 39.167 | 75.267 | -2.063 | 1.00114.86 | heav | 0 |
| ATOM | 836 | OH | TYR | 1104 | 39.038 | 75.989 | -3.246 | 1.00114.86 | heav | 0 |
| ATOM | 837 | C | TYR | 1104 | 40.975 | 72.021 | 3.386 | 1.00 | 49.38 | heav | 0 |
| ATOM | 838 | O | TYR | 1104 | 40.299 | 72.486 | 4.300 | 1.00114.86 | heav | 0 |
| ATOM | 839 | N | GLU | 1105 | 41.482 | 70.801 | 3.555 | 1.00 | 33.39 | heav | 0 |
| ATOM | 840 | CA | GLU | 1105 | 41.066 | 70.010 | 4.710 | 1.00 | 33.39 | heav | 0 |
| ATOM | 841 | CB | GLU | 1105 | 39.844 | 69.164 | 4.367 | 1.00 | 58.00 | heav | 0 |
| ATOM | 842 | CG | GLU | 1105 | 38.516 | 69.887 | 4.140 | 1.00 | 58.00 | heav | 0 |
| ATOM | 843 | CD | GLU | 1105 | 37.460 | 69.113 | 3.355 | 1.00 | 58.00 | heav | 0 |
| ATOM | 844 | OE1 | GLU | 1105 | 37.611 | 67.897 | 3.105 | 1.00 | 58.00 | heav | 0 |
| ATOM | 845 | OE2 | GLU | 1105 | 36.475 | 69.758 | 2.973 | 1.00 | 58.00 | heav | 0 |
| ATOM | 846 | C | GLU | 1105 | 42.114 | 69.085 | 5.210 | 1.00 | 33.39 | heav | 0 |
| ATOM | 847 | O | GLU | 1105 | 42.070 | 68.742 | 6.381 | 1.00 | 58.00 | heav | 0 |
| ATOM | 848 | N | THR | 1106 | 43.044 | 68.625 | 4.404 | 1.00 | 2.00 | heav | 0 |
| ATOM | 849 | CA | THR | 1106 | 44.022 | 67.652 | 4.854 | 1.00 | 2.00 | heav | 0 |
| ATOM | 850 | CB | THR | 1106 | 44.847 | 68.376 | 5.896 | 1.00 | 43.96 | heav | 0 |
| ATOM | 851 | OG1 | THR | 1106 | 45.440 | 69.360 | 5.098 | 1.00 | 43.96 | heav | 0 |
| ATOM | 852 | CG2 | THR | 1106 | 45.980 | 67.681 | 6.574 | 1.00 | 43.96 | heav | 0 |
| ATOM | 853 | C | THR | 1106 | 43.506 | 66.328 | 5.369 | 1.00 | 2.00 | heav | 0 |
| ATOM | 854 | O | THR | 1106 | 44.403 | 65.580 | 5.724 | 1.00 | 43.96 | heav | 0 |
| ATOM | 855 | N | TYR | 1107 | 42.258 | 65.887 | 5.447 | 1.00 | 2.00 | heav | 0 |
| ATOM | 856 | CA | TYR | 1107 | 42.068 | 64.623 | 6.096 | 1.00 | 2.00 | heav | 0 |
| ATOM | 857 | CB | TYR | 1107 | 41.471 | 64.883 | 7.422 | 1.00 | 23.49 | heav | 0 |
| ATOM | 858 | CG | TYR | 1107 | 40.093 | 65.394 | 7.340 | 1.00 | 23.49 | heav | 0 |
| ATOM | 859 | CD1 | TYR | 1107 | 39.885 | 66.745 | 7.238 | 1.00 | 23.49 | heav | 0 |
| ATOM | 860 | CE1 | TYR | 1107 | 38.584 | 67.193 | 7.123 | 1.00 | 23.49 | heav | 0 |
| ATOM | 861 | CD2 | TYR | 1107 | 39.060 | 64.480 | 7.332 | 1.00 | 23.49 | heav | 0 |
| ATOM | 862 | CE2 | TYR | 1107 | 37.764 | 64.923 | 7.209 | 1.00 | 23.49 | heav | 0 |
| ATOM | 863 | CZ | TYR | 1107 | 37.544 | 66.274 | 7.108 | 1.00 | 23.49 | heav | 0 |
| ATOM | 864 | OH | TYR | 1107 | 36.244 | 66.704 | 6.972 | 1.00 | 23.49 | heav | 0 |
| ATOM | 865 | C | TYR | 1107 | 41.246 | 63.629 | 5.317 | 1.00 | 2.00 | heav | 0 |
| ATOM | 866 | O | TYR | 1107 | 40.422 | 63.989 | 4.449 | 1.00 | 23.49 | heav | 0 |
| ATOM | 867 | N | PHE | 1108 | 41.499 | 62.370 | 5.679 | 1.00 | 2.00 | heav | 0 |
| ATOM | 868 | CA | PHE | 1108 | 40.923 | 61.258 | 4.963 | 1.00 | 2.00 | heav | 0 |
| ATOM | 869 | CB | PHE | 1108 | 41.703 | 59.996 | 5.275 | 1.00 | 12.69 | heav | 0 |
| ATOM | 870 | CG | PHE | 1108 | 43.179 | 60.006 | 4.955 | 1.00 | 12.69 | heav | 0 |
| ATOM | 871 | CD1 | PHE | 1108 | 43.945 | 58.978 | 5.373 | 1.00 | 12.69 | heav | 0 |
| ATOM | 872 | CD2 | PHE | 1108 | 43.782 | 60.972 | 4.215 | 1.00 | 12.69 | heav | 0 |
| ATOM | 873 | CE1 | PHE | 1108 | 45.273 | 58.924 | 5.030 | 1.00 | 12.69 | heav | 0 |
| ATOM | 874 | CE2 | PHE | 1108 | 45.119 | 60.913 | 3.870 | 1.00 | 12.69 | heav | 0 |
| ATOM | 875 | CZ | PHE | 1108 | 45.883 | 59.885 | 4.275 | 1.00 | 12.69 | heav | 0 |
| ATOM | 876 | C | PHE | 1108 | 39.466 | 61.097 | 5.343 | 1.00 | 2.00 | heav | 0 |
| ATOM | 877 | O | PHE | 1108 | 39.132 | 60.447 | 6.333 | 1.00 | 12.69 | heav | 0 |
| ATOM | 878 | N | ASP | 1109 | 38.611 | 61.682 | 4.518 | 1.00 | 2.00 | heav | 0 |
| ATOM | 879 | CA | ASP | 1109 | 37.185 | 61.635 | 4.735 | 1.00 | 2.00 | heav | 0 |
| ATOM | 880 | CB | ASP | 1109 | 36.579 | 62.924 | 4.235 | 1.00 | 49.35 | heav | 0 |
| ATOM | 881 | CG | ASP | 1109 | 36.867 | 63.304 | 2.792 | 1.00 | 49.35 | heav | 0 |
| ATOM | 882 | OD1 | ASP | 1109 | 36.603 | 64.448 | 2.437 | 1.00 | 49.35 | heav | 0 |

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| ATOM | 883 | OD2 | ASP | 1109 | 37.344 | 62.481 | 2.017 | 1.00 | 49.35 | heav | O |
|------|-----|-----|-----|------|--------|--------|-------|------|-------|------|---|
| ATOM | 884 | C | ASP | 1109 | 36.373 | 60.479 | 4.176 | 1.00 | 2.00 | heav | O |
| ATOM | 885 | O | ASP | 1109 | 35.267 | 60.283 | 4.659 | 1.00 | 49.35 | heav | O |
| ATOM | 886 | N | VAL | 1110 | 36.752 | 59.713 | 3.161 | 1.00 | 28.72 | heav | O |
| ATOM | 887 | CA | VAL | 1110 | 35.980 | 58.530 | 2.727 | 1.00 | 28.72 | heav | O |
| ATOM | 888 | CB | VAL | 1110 | 35.392 | 58.673 | 1.324 | 1.00 | 29.97 | heav | O |
| ATOM | 889 | CG1 | VAL | 1110 | 34.679 | 57.410 | 0.864 | 1.00 | 29.97 | heav | O |
| ATOM | 890 | CG2 | VAL | 1110 | 34.397 | 59.799 | 1.375 | 1.00 | 29.97 | heav | O |
| ATOM | 891 | C | VAL | 1110 | 36.973 | 57.388 | 2.689 | 1.00 | 28.72 | heav | O |
| ATOM | 892 | O | VAL | 1110 | 38.139 | 57.685 | 2.387 | 1.00 | 29.97 | heav | O |
| ATOM | 893 | N | TRP | 1111 | 36.582 | 56.136 | 2.941 | 1.00 | 2.00 | heav | O |
| ATOM | 894 | CA | TRP | 1111 | 37.558 | 55.058 | 3.055 | 1.00 | 2.00 | heav | O |
| ATOM | 895 | CB | TRP | 1111 | 37.918 | 54.726 | 4.573 | 1.00 | 2.00 | heav | O |
| ATOM | 896 | CG | TRP | 1111 | 38.793 | 55.657 | 5.403 | 1.00 | 2.00 | heav | O |
| ATOM | 897 | CD2 | TRP | 1111 | 40.051 | 55.363 | 5.838 | 1.00 | 2.00 | heav | O |
| ATOM | 898 | CE2 | TRP | 1111 | 40.432 | 56.564 | 6.415 | 1.00 | 2.00 | heav | O |
| ATOM | 899 | CE3 | TRP | 1111 | 40.910 | 54.284 | 5.820 | 1.00 | 2.00 | heav | O |
| ATOM | 900 | CD1 | TRP | 1111 | 38.419 | 56.934 | 5.713 | 1.00 | 2.00 | heav | O |
| ATOM | 901 | NE1 | TRP | 1111 | 39.449 | 57.472 | 6.319 | 1.00 | 2.00 | heav | O |
| ATOM | 902 | CZ2 | TRP | 1111 | 41.668 | 56.716 | 6.987 | 1.00 | 2.00 | heav | O |
| ATOM | 903 | CZ3 | TRP | 1111 | 42.164 | 54.421 | 6.387 | 1.00 | 2.00 | heav | O |
| ATOM | 904 | CH2 | TRP | 1111 | 42.518 | 55.634 | 6.955 | 1.00 | 2.00 | heav | O |
| ATOM | 905 | C | TRP | 1111 | 36.908 | 53.827 | 2.446 | 1.00 | 2.00 | heav | O |
| ATOM | 906 | O | TRP | 1111 | 35.755 | 53.569 | 2.794 | 1.00 | 2.00 | heav | O |
| ATOM | 907 | N | GLY | 1112 | 37.447 | 52.984 | 1.571 | 1.00 | 12.84 | heav | O |
| ATOM | 908 | CA | GLY | 1112 | 36.705 | 51.770 | 1.191 | 1.00 | 12.84 | heav | O |
| ATOM | 909 | C | GLY | 1112 | 36.651 | 50.790 | 2.361 | 1.00 | 12.84 | heav | O |
| ATOM | 910 | O | GLY | 1112 | 37.281 | 51.026 | 3.389 | 1.00 | 25.02 | heav | O |
| ATOM | 911 | N | GLN | 1113 | 35.945 | 49.663 | 2.278 | 1.00 | 2.00 | heav | O |
| ATOM | 912 | CA | GLN | 1113 | 35.854 | 48.686 | 3.383 | 1.00 | 2.00 | heav | O |
| ATOM | 913 | CB | GLN | 1113 | 34.860 | 47.592 | 2.946 | 1.00 | 96.01 | heav | O |
| ATOM | 914 | CG | GLN | 1113 | 34.927 | 47.027 | 1.484 | 1.00 | 96.01 | heav | O |
| ATOM | 915 | CD | GLN | 1113 | 36.132 | 46.153 | 1.052 | 1.00 | 96.01 | heav | O |
| ATOM | 916 | OE1 | GLN | 1113 | 37.013 | 46.618 | 0.310 | 1.00 | 96.01 | heav | O |
| ATOM | 917 | NE2 | GLN | 1113 | 36.260 | 44.899 | 1.500 | 1.00 | 96.01 | heav | O |
| ATOM | 918 | C | GLN | 1113 | 37.212 | 48.077 | 3.791 | 1.00 | 2.00 | heav | O |
| ATOM | 919 | O | GLN | 1113 | 37.493 | 47.806 | 4.953 | 1.00 | 96.01 | heav | O |
| ATOM | 920 | N | GLY | 1114 | 37.984 | 47.877 | 2.708 | 1.00 | 2.00 | heav | O |
| ATOM | 921 | CA | GLY | 1114 | 39.290 | 47.280 | 2.719 | 1.00 | 2.00 | heav | O |
| ATOM | 922 | C | GLY | 1114 | 39.280 | 45.805 | 2.363 | 1.00 | 2.00 | heav | O |
| ATOM | 923 | O | GLY | 1114 | 38.427 | 45.051 | 2.850 | 1.00 | 26.00 | heav | O |
| ATOM | 924 | N | THR | 1115 | 40.126 | 45.286 | 1.481 | 1.00 | 2.00 | heav | O |
| ATOM | 925 | CA | THR | 1115 | 40.163 | 43.845 | 1.322 | 1.00 | 2.00 | heav | O |
| ATOM | 926 | CB | THR | 1115 | 40.508 | 43.365 | -0.044 | 1.00 | 19.22 | heav | O |
| ATOM | 927 | OG1 | THR | 1115 | 41.294 | 44.425 | -0.578 | 1.00 | 19.22 | heav | O |
| ATOM | 928 | CG2 | THR | 1115 | 39.306 | 42.953 | -0.870 | 1.00 | 19.22 | heav | O |
| ATOM | 929 | C | THR | 1115 | 41.342 | 43.503 | 2.171 | 1.00 | 2.00 | heav | O |
| ATOM | 930 | O | THR | 1115 | 42.276 | 44.274 | 2.451 | 1.00 | 19.22 | heav | O |
| ATOM | 931 | N | THR | 1116 | 41.257 | 42.228 | 2.401 | 1.00 | 15.39 | heav | O |
| ATOM | 932 | CA | THR | 1116 | 42.235 | 41.513 | 3.166 | 1.00 | 15.39 | heav | O |
| ATOM | 933 | CB | THR | 1116 | 41.444 | 40.598 | 4.034 | 1.00 | 46.07 | heav | O |
| ATOM | 934 | OG1 | THR | 1116 | 40.417 | 41.391 | 4.629 | 1.00 | 46.07 | heav | O |
| ATOM | 935 | CG2 | THR | 1116 | 42.281 | 39.970 | 5.098 | 1.00 | 46.07 | heav | O |
| ATOM | 936 | C | THR | 1116 | 43.112 | 40.790 | 2.162 | 1.00 | 15.39 | heav | O |
| ATOM | 937 | O | THR | 1116 | 42.637 | 40.494 | 1.061 | 1.00 | 46.07 | heav | O |
| ATOM | 938 | N | VAL | 1117 | 44.376 | 40.570 | 2.512 | 1.00 | 16.17 | heav | O |
| ATOM | 939 | CA | VAL | 1117 | 45.346 | 39.919 | 1.667 | 1.00 | 16.17 | heav | O |
| ATOM | 940 | CB | VAL | 1117 | 46.247 | 40.906 | 0.927 | 1.00 | 16.56 | heav | O |
| ATOM | 941 | CG1 | VAL | 1117 | 47.226 | 40.144 | 0.034 | 1.00 | 16.56 | heav | O |
| ATOM | 942 | CG2 | VAL | 1117 | 45.456 | 41.746 | -0.017 | 1.00 | 16.56 | heav | O |
| ATOM | 943 | C | VAL | 1117 | 46.247 | 39.130 | 2.599 | 1.00 | 16.17 | heav | O |
| ATOM | 944 | O | VAL | 1117 | 46.831 | 39.721 | 3.530 | 1.00 | 16.56 | heav | O |
| ATOM | 945 | N | THR | 1118 | 46.371 | 37.821 | 2.294 | 1.00 | 22.92 | heav | O |
| ATOM | 946 | CA | THR | 1118 | 47.159 | 36.856 | 3.028 | 1.00 | 22.92 | heav | O |
| ATOM | 947 | CB | THR | 1118 | 46.265 | 35.688 | 3.503 | 1.00 | 25.71 | heav | O |
| ATOM | 948 | OG1 | THR | 1118 | 44.962 | 36.173 | 3.839 | 1.00 | 25.71 | heav | O |
| ATOM | 949 | CG2 | THR | 1118 | 46.754 | 35.097 | 4.805 | 1.00 | 25.71 | heav | O |

| ATOM | 950 | C | THR | 1118 | 48.213 | 36.381 | 2.044 | 1.00 | 22.92 | heav | O |
|------|-----|-----|-----|------|--------|--------|-------|------|-------|------|---|
| ATOM | 951 | O | THR | 1118 | 47.955 | 35.953 | 0.918 | 1.00 | 25.71 | heav | O |
| ATOM | 952 | N | VAL | 1119 | 49.466 | 36.579 | 2.402 | 1.00 | 2.00 | heav | O |
| ATOM | 953 | CA | VAL | 1119 | 50.598 | 36.121 | 1.611 | 1.00 | 2.00 | heav | O |
| ATOM | 954 | CB | VAL | 1119 | 51.790 | 36.988 | 1.852 | 1.00 | 12.47 | heav | O |
| ATOM | 955 | CG1 | VAL | 1119 | 52.919 | 36.554 | 1.005 | 1.00 | 12.47 | heav | O |
| ATOM | 956 | CG2 | VAL | 1119 | 51.448 | 38.378 | 1.474 | 1.00 | 12.47 | heav | O |
| ATOM | 957 | C | VAL | 1119 | 50.868 | 34.746 | 2.175 | 1.00 | 2.00 | heav | O |
| ATOM | 958 | O | VAL | 1119 | 51.188 | 34.640 | 3.357 | 1.00 | 12.47 | heav | O |
| ATOM | 959 | N | SER | 1120 | 50.765 | 33.655 | 1.457 | 1.00 | 28.74 | heav | O |
| ATOM | 960 | CA | SER | 1120 | 50.947 | 32.339 | 2.045 | 1.00 | 28.74 | heav | O |
| ATOM | 961 | CB | SER | 1120 | 49.765 | 31.933 | 2.937 | 1.00 | 61.81 | heav | O |
| ATOM | 962 | OG | SER | 1120 | 49.943 | 30.700 | 3.638 | 1.00 | 61.81 | heav | O |
| ATOM | 963 | C | SER | 1120 | 51.022 | 31.365 | 0.893 | 1.00 | 28.74 | heav | O |
| ATOM | 964 | O | SER | 1120 | 50.524 | 31.591 | -0.219 | 1.00 | 61.81 | heav | O |
| ATOM | 965 | N | SER | 1121 | 51.706 | 30.266 | 1.177 | 1.00 | 41.68 | heav | O |
| ATOM | 966 | CA | SER | 1121 | 51.825 | 29.217 | 0.188 | 1.00 | 41.68 | heav | O |
| ATOM | 967 | CB | SER | 1121 | 53.166 | 28.530 | 0.420 | 1.00 | 82.27 | heav | O |
| ATOM | 968 | OG | SER | 1121 | 53.590 | 28.698 | 1.779 | 1.00 | 82.27 | heav | O |
| ATOM | 969 | C | SER | 1121 | 50.635 | 28.259 | 0.317 | 1.00 | 41.68 | heav | O |
| ATOM | 970 | O | SER | 1121 | 50.445 | 27.429 | -0.565 | 1.00 | 82.27 | heav | O |
| ATOM | 971 | N | ALA | 1122 | 49.795 | 28.335 | 1.375 | 1.00 | 2.00 | heav | O |
| ATOM | 972 | CA | ALA | 1122 | 48.665 | 27.432 | 1.542 | 1.00 | 2.00 | heav | O |
| ATOM | 973 | CB | ALA | 1122 | 48.090 | 27.705 | 2.887 | 1.00 | 27.15 | heav | O |
| ATOM | 974 | C | ALA | 1122 | 47.545 | 27.479 | 0.474 | 1.00 | 2.00 | heav | O |
| ATOM | 975 | O | ALA | 1122 | 47.463 | 28.362 | -0.401 | 1.00 | 27.15 | heav | O |
| ATOM | 976 | N | LYS | 1123 | 46.615 | 26.522 | 0.574 | 1.00 | 34.06 | heav | O |
| ATOM | 977 | CA | LYS | 1123 | 45.573 | 26.360 | -0.429 | 1.00 | 34.06 | heav | O |
| ATOM | 978 | CB | LYS | 1123 | 45.430 | 24.851 | -0.644 | 1.00 | 83.00 | heav | O |
| ATOM | 979 | CG | LYS | 1123 | 44.808 | 24.347 | -1.950 | 1.00 | 83.00 | heav | O |
| ATOM | 980 | CD | LYS | 1123 | 43.287 | 24.093 | -1.988 | 1.00 | 83.00 | heav | O |
| ATOM | 981 | CE | LYS | 1123 | 42.841 | 22.814 | -1.251 | 1.00 | 83.00 | heav | O |
| ATOM | 982 | NZ | LYS | 1123 | 41.387 | 22.649 | -1.202 | 1.00 | 83.00 | heav | O |
| ATOM | 983 | C | LYS | 1123 | 44.303 | 27.005 | 0.096 | 1.00 | 34.06 | heav | O |
| ATOM | 984 | O | LYS | 1123 | 44.023 | 26.895 | 1.298 | 1.00 | 83.00 | heav | O |
| ATOM | 985 | N | THR | 1124 | 43.551 | 27.696 | -0.765 | 1.00 | 33.70 | heav | O |
| ATOM | 986 | CA | THR | 1124 | 42.280 | 28.227 | -0.297 | 1.00 | 33.70 | heav | O |
| ATOM | 987 | CB | THR | 1124 | 41.621 | 29.360 | -1.223 | 1.00 | 35.73 | heav | O |
| ATOM | 988 | OG1 | THR | 1124 | 40.807 | 28.828 | -2.250 | 1.00 | 35.73 | heav | O |
| ATOM | 989 | CG2 | THR | 1124 | 42.691 | 30.186 | -1.872 | 1.00 | 35.73 | heav | O |
| ATOM | 990 | C | THR | 1124 | 41.352 | 27.020 | -0.233 | 1.00 | 33.70 | heav | O |
| ATOM | 991 | O | THR | 1124 | 41.157 | 26.308 | -1.218 | 1.00 | 35.73 | heav | O |
| ATOM | 992 | N | THR | 1125 | 40.828 | 26.716 | 0.929 | 1.00 | 39.54 | heav | O |
| ATOM | 993 | CA | THR | 1125 | 40.022 | 25.543 | 1.139 | 1.00 | 39.54 | heav | O |
| ATOM | 994 | CB | THR | 1125 | 40.764 | 24.726 | 2.179 | 1.00 | 49.95 | heav | O |
| ATOM | 995 | OG1 | THR | 1125 | 42.083 | 24.559 | 1.676 | 1.00 | 49.95 | heav | O |
| ATOM | 996 | CG2 | THR | 1125 | 40.079 | 23.426 | 2.486 | 1.00 | 49.95 | heav | O |
| ATOM | 997 | C | THR | 1125 | 38.683 | 26.100 | 1.618 | 1.00 | 39.54 | heav | O |
| ATOM | 998 | O | THR | 1125 | 38.629 | 27.065 | 2.404 | 1.00 | 49.95 | heav | O |
| ATOM | 999 | N | PRO | 1126 | 37.558 | 25.608 | 1.132 | 1.00 | 24.65 | heav | O |
| ATOM | 1000 | CD | PRO | 1126 | 37.511 | 24.647 | 0.055 | 1.00 | 41.42 | heav | O |
| ATOM | 1001 | CA | PRO | 1126 | 36.245 | 26.134 | 1.500 | 1.00 | 24.65 | heav | O |
| ATOM | 1002 | CB | PRO | 1126 | 35.408 | 25.723 | 0.311 | 1.00 | 41.42 | heav | O |
| ATOM | 1003 | CG | PRO | 1126 | 36.028 | 24.407 | -0.084 | 1.00 | 41.42 | heav | O |
| ATOM | 1004 | C | PRO | 1126 | 35.761 | 25.650 | 2.857 | 1.00 | 24.65 | heav | O |
| ATOM | 1005 | O | PRO | 1126 | 36.314 | 24.659 | 3.334 | 1.00 | 41.42 | heav | O |
| ATOM | 1006 | N | PRO | 1127 | 34.785 | 26.306 | 3.514 | 1.00 | 14.53 | heav | O |
| ATOM | 1007 | CD | PRO | 1127 | 34.101 | 27.497 | 3.036 | 1.00 | 14.53 | heav | O |
| ATOM | 1008 | CA | PRO | 1127 | 34.351 | 25.988 | 4.861 | 1.00 | 14.98 | heav | O |
| ATOM | 1009 | CB | PRO | 1127 | 33.961 | 27.337 | 5.362 | 1.00 | 14.98 | heav | O |
| ATOM | 1010 | CG | PRO | 1127 | 33.317 | 28.016 | 4.202 | 1.00 | 14.98 | heav | O |
| ATOM | 1011 | C | PRO | 1127 | 33.277 | 24.916 | 5.003 | 1.00 | 14.53 | heav | O |
| ATOM | 1012 | O | PRO | 1127 | 32.455 | 24.769 | 4.083 | 1.00 | 14.98 | heav | O |
| ATOM | 1013 | N | SER | 1128 | 33.278 | 24.112 | 6.094 | 1.00 | 2.00 | heav | O |
| ATOM | 1014 | CA | SER | 1128 | 32.170 | 23.199 | 6.420 | 1.00 | 2.00 | heav | O |
| ATOM | 1015 | CB | SER | 1128 | 32.643 | 21.935 | 7.092 | 1.00 | 44.54 | heav | O |
| ATOM | 1016 | OG | SER | 1128 | 33.627 | 21.224 | 6.369 | 1.00 | 44.54 | heav | O |

| ATOM | 1017 | C    | SER | 1128 | 31.288 | 23.935 | 7.417  | 1.00 | 2.00   | heav | O |
|------|------|------|-----|------|--------|--------|--------|------|--------|------|---|
| ATOM | 1018 | O    | SER | 1128 | 31.814 | 24.516 | 8.370  | 1.00 | 44.54  | heav | O |
| ATOM | 1019 | N    | VAL | 1129 | 29.976 | 23.996 | 7.265  | 1.00 | 2.00   | heav | O |
| ATOM | 1020 | CA   | VAL | 1129 | 29.142 | 24.692 | 8.232  | 1.00 | 2.00   | heav | O |
| ATOM | 1021 | CB   | VAL | 1129 | 28.189 | 25.566 | 7.528  | 1.00 | 13.46  | heav | O |
| ATOM | 1022 | CG1  | VAL | 1129 | 27.505 | 26.457 | 8.486  | 1.00 | 13.46  | heav | O |
| ATOM | 1023 | CG2  | VAL | 1129 | 28.954 | 26.398 | 6.585  | 1.00 | 13.46  | heav | O |
| ATOM | 1024 | C    | VAL | 1129 | 28.397 | 23.627 | 8.977  | 1.00 | 2.00   | heav | O |
| ATOM | 1025 | O    | VAL | 1129 | 27.791 | 22.749 | 8.377  | 1.00 | 13.46  | heav | O |
| ATOM | 1026 | N    | TYR | 1130 | 28.464 | 23.619 | 10.274 | 1.00 | 2.00   | heav | O |
| ATOM | 1027 | CA   | TYR | 1130 | 27.798 | 22.609 | 11.078 | 1.00 | 2.00   | heav | O |
| ATOM | 1028 | CB   | TYR | 1130 | 28.813 | 21.879 | 11.878 | 1.00 | 23.66  | heav | O |
| ATOM | 1029 | CG   | TYR | 1130 | 29.794 | 21.125 | 10.982 | 1.00 | 23.66  | heav | O |
| ATOM | 1030 | CD1  | TYR | 1130 | 29.367 | 20.277 | 9.987  | 1.00 | 23.66  | heav | O |
| ATOM | 1031 | CE1  | TYR | 1130 | 30.284 | 19.581 | 9.242  | 1.00 | 23.66  | heav | O |
| ATOM | 1032 | CD2  | TYR | 1130 | 31.129 | 21.275 | 11.218 | 1.00 | 23.66  | heav | O |
| ATOM | 1033 | CE2  | TYR | 1130 | 32.049 | 20.580 | 10.482 | 1.00 | 23.66  | heav | O |
| ATOM | 1034 | CZ   | TYR | 1130 | 31.630 | 19.732 | 9.488  | 1.00 | 23.66  | heav | O |
| ATOM | 1035 | OH   | TYR | 1130 | 32.571 | 19.056 | 8.719  | 1.00 | 23.66  | heav | O |
| ATOM | 1036 | C    | TYR | 1130 | 26.843 | 23.307 | 11.986 | 1.00 | 2.00   | heav | O |
| ATOM | 1037 | O    | TYR | 1130 | 27.188 | 24.348 | 12.538 | 1.00 | 23.66  | heav | O |
| ATOM | 1038 | N    | PRO | 1131 | 25.612 | 22.891 | 12.102 | 1.00 | 2.00   | heav | O |
| ATOM | 1039 | CD   | PRO | 1131 | 25.058 | 21.739 | 11.438 | 1.00 | 29.81  | heav | O |
| ATOM | 1040 | CA   | PRO | 1131 | 24.618 | 23.587 | 12.890 | 1.00 | 2.00   | heav | O |
| ATOM | 1041 | CB   | PRO | 1131 | 23.326 | 23.154 | 12.290 | 1.00 | 29.81  | heav | O |
| ATOM | 1042 | CG   | PRO | 1131 | 23.613 | 21.709 | 11.978 | 1.00 | 29.81  | heav | O |
| ATOM | 1043 | C    | PRO | 1131 | 24.805 | 23.179 | 14.345 | 1.00 | 2.00   | heav | O |
| ATOM | 1044 | O    | PRO | 1131 | 25.228 | 22.055 | 14.637 | 1.00 | 29.81  | heav | O |
| ATOM | 1045 | N    | LEU | 1132 | 24.511 | 24.075 | 15.285 | 1.00 | 21.13  | heav | O |
| ATOM | 1046 | CA   | LEU | 1132 | 24.664 | 23.803 | 16.694 | 1.00 | 21.13  | heav | O |
| ATOM | 1047 | CB   | LEU | 1132 | 25.673 | 24.767 | 17.242 | 1.00 | 20.96  | heav | O |
| ATOM | 1048 | CG   | LEU | 1132 | 27.032 | 24.663 | 16.569 | 1.00 | 20.96  | heav | O |
| ATOM | 1049 | CD1  | LEU | 1132 | 27.896 | 25.786 | 17.103 | 1.00 | 20.96  | heav | O |
| ATOM | 1050 | CD2  | LEU | 1132 | 27.618 | 23.257 | 16.771 | 1.00 | 20.96  | heav | O |
| ATOM | 1051 | C    | LEU | 1132 | 23.306 | 24.025 | 17.270 | 1.00 | 21.13  | heav | O |
| ATOM | 1052 | O    | LEU | 1132 | 22.769 | 25.139 | 17.329 | 1.00 | 20.96  | heav | O |
| ATOM | 1053 | N    | ALA | 1133 | 22.758 | 22.875 | 17.570 | 1.00 | 18.57  | heav | O |
| ATOM | 1054 | CA   | ALA | 1133 | 21.413 | 22.867 | 18.062 | 1.00 | 18.57  | heav | O |
| ATOM | 1055 | CB   | ALA | 1133 | 20.568 | 21.897 | 17.338 | 1.00 | 2.00   | heav | O |
| ATOM | 1056 | C    | ALA | 1133 | 21.518 | 22.368 | 19.451 | 1.00 | 18.57  | heav | O |
| ATOM | 1057 | O    | ALA | 1133 | 22.331 | 21.445 | 19.609 | 1.00 | 2.00   | heav | O |
| ATOM | 1058 | N    | PRO | 1134 | 20.755 | 22.892 | 20.443 | 1.00 | 33.60  | heav | O |
| ATOM | 1059 | CD   | PRO | 1134 | 19.560 | 23.739 | 20.288 | 1.00 | 21.48  | heav | O |
| ATOM | 1060 | CA   | PRO | 1134 | 20.906 | 22.520 | 21.838 | 1.00 | 33.60  | heav | O |
| ATOM | 1061 | CB   | PRO | 1134 | 19.829 | 23.253 | 22.598 | 1.00 | 21.48  | heav | O |
| ATOM | 1062 | CG   | PRO | 1134 | 19.338 | 24.339 | 21.688 | 1.00 | 21.48  | heav | O |
| ATOM | 1063 | C    | PRO | 1134 | 20.673 | 21.039 | 21.768 | 1.00 | 33.60  | heav | O |
| ATOM | 1064 | O    | PRO | 1134 | 19.801 | 20.508 | 21.039 | 1.00 | 21.48  | heav | O |
| ATOM | 1065 | N    | GLY | 1135 | 21.695 | 20.419 | 22.331 | 1.00 | 61.30  | heav | O |
| ATOM | 1066 | CA   | GLY | 1135 | 21.614 | 19.002 | 22.510 | 1.00 | 61.30  | heav | O |
| ATOM | 1067 | C    | GLY | 1135 | 20.464 | 18.878 | 23.483 | 1.00 | 61.30  | heav | O |
| ATOM | 1068 | O    | GLY | 1135 | 20.466 | 19.585 | 24.494 | 1.00 | 66.59  | heav | O |
| ATOM | 1069 | N    | SER | 1136 | 19.395 | 18.249 | 22.999 | 1.00 | 88.88  | heav | O |
| ATOM | 1070 | CA   | SER | 1136 | 18.232 | 17.867 | 23.791 | 1.00 | 88.88  | heav | O |
| ATOM | 1071 | CB   | SER | 1136 | 18.509 | 16.368 | 24.128 | 1.00 | 91.25  | heav | O |
| ATOM | 1072 | OG   | SER | 1136 | 19.842 | 15.854 | 23.901 | 1.00 | 91.25  | heav | O |
| ATOM | 1073 | C    | SER | 1136 | 17.722 | 18.663 | 25.028 | 1.00 | 88.88  | heav | O |
| ATOM | 1074 | O    | SER | 1136 | 17.489 | 18.063 | 26.091 | 1.00 | 91.25  | heav | O |
| ATOM | 1075 | N    | ALA | 1137 | 17.460 | 19.990 | 24.962 | 1.00 | 104.47 | heav | O |
| ATOM | 1076 | CA   | ALA | 1137 | 16.976 | 20.763 | 26.122 | 1.00 | 104.47 | heav | O |
| ATOM | 1077 | CB   | ALA | 1137 | 18.180 | 21.328 | 26.919 | 1.00 | 62.26  | heav | O |
| ATOM | 1078 | C    | ALA | 1137 | 16.010 | 21.937 | 25.854 | 1.00 | 104.47 | heav | O |
| ATOM | 1079 | O    | ALA | 1137 | 16.432 | 23.066 | 25.588 | 1.00 | 62.26  | heav | O |
| ATOM | 1080 | N    | ALA | 1138 | 14.684 | 21.722 | 25.864 | 1.00 | 89.53  | heav | O |
| ATOM | 1081 | CA   | ALA | 1138 | 13.707 | 22.813 | 25.749 | 1.00 | 89.53  | heav | O |
| ATOM | 1082 | CB   | ALA | 1138 | 12.474 | 22.348 | 24.954 | 1.00 | 64.58  | heav | O |
| ATOM | 1083 | C    | ALA | 1138 | 13.286 | 23.253 | 27.172 | 1.00 | 89.53  | heav | O |

| ATOM | 1084 | O | ALA | 1138 | 13.830 | 22.733 | 28.166 | 1.00 64.58 | heav | O |
|------|------|------|------|------|--------|--------|--------|------------|------|---|
| ATOM | 1085 | N | GLN | 1139 | 12.355 | 24.224 | 27.338 | 1.00100.44 | heav | O |
| ATOM | 1086 | CA | GLN | 1139 | 11.948 | 24.806 | 28.640 | 1.00100.44 | heav | O |
| ATOM | 1087 | CB | GLN | 1139 | 11.304 | 23.725 | 29.550 | 1.00 81.13 | heav | O |
| ATOM | 1088 | CG | GLN | 1139 | .931 | 23.248 | 29.066 | 1.00 81.13 | heav | O |
| ATOM | 1089 | CD | GLN | 1139 | .929 | 22.427 | 27.775 | 1.00 81.13 | heav | O |
| ATOM | 1090 | OE1 | GLN | 1139 | .808 | 22.925 | 26.651 | 1.00 81.13 | heav | O |
| ATOM | 1091 | NE2 | GLN | 1139 | 10.115 | 21.125 | 27.885 | 1.00 81.13 | heav | O |
| ATOM | 1092 | C | GLN | 1139 | 13.128 | 25.466 | 29.383 | 1.00100.44 | heav | O |
| ATOM | 1093 | O | GLN | 1139 | 13.206 | 25.637 | 30.606 | 1.00 81.13 | heav | O |
| ATOM | 1094 | N | THR | 1140 | 14.082 | 25.896 | 28.566 | 1.00 90.94 | heav | O |
| ATOM | 1095 | CA | THR | 1140 | 15.314 | 26.516 | 29.002 | 1.00 90.94 | heav | O |
| ATOM | 1096 | CB | THR | 1140 | 16.469 | 26.223 | 27.977 | 1.00 98.35 | heav | O |
| ATOM | 1097 | OG1 | THR | 1140 | 15.906 | 25.446 | 26.917 | 1.00 98.35 | heav | O |
| ATOM | 1098 | CG2 | THR | 1140 | 17.671 | 25.515 | 28.634 | 1.00 98.35 | heav | O |
| ATOM | 1099 | C | THR | 1140 | 15.058 | 28.010 | 29.106 | 1.00 90.94 | heav | O |
| ATOM | 1100 | O | THR | 1140 | 15.461 | 28.819 | 28.270 | 1.00 98.35 | heav | O |
| ATOM | 1101 | N | ASN | 1141 | 14.406 | 28.380 | 30.200 | 1.00 85.64 | heav | O |
| ATOM | 1102 | CA | ASN | 1141 | 14.069 | 29.781 | 30.476 | 1.00 85.64 | heav | O |
| ATOM | 1103 | CB | ASN | 1141 | 15.456 | 30.521 | 30.711 | 1.00122.20 | heav | O |
| ATOM | 1104 | CG | ASN | 1141 | 15.543 | 31.983 | 31.170 | 1.00122.20 | heav | O |
| ATOM | 1105 | OD1 | ASN | 1141 | 15.338 | 32.905 | 30.385 | 1.00122.20 | heav | O |
| ATOM | 1106 | ND2 | ASN | 1141 | 15.918 | 32.307 | 32.400 | 1.00122.20 | heav | O |
| ATOM | 1107 | C | ASN | 1141 | 13.190 | 30.356 | 29.334 | 1.00 85.64 | heav | O |
| ATOM | 1108 | O | ASN | 1141 | 12.259 | 29.645 | 28.940 | 1.00122.20 | heav | O |
| ATOM | 1109 | N | SER | 1142 | 13.316 | 31.608 | 28.883 | 1.00 46.69 | heav | O |
| ATOM | 1110 | CA | SER | 1142 | 12.573 | 32.217 | 27.795 | 1.00 46.69 | heav | O |
| ATOM | 1111 | CB | SER | 1142 | 12.199 | 33.637 | 28.112 | 1.00 86.63 | heav | O |
| ATOM | 1112 | OG | SER | 1142 | 13.339 | 34.405 | 28.548 | 1.00 86.63 | heav | O |
| ATOM | 1113 | C | SER | 1142 | 13.436 | 32.293 | 26.554 | 1.00 46.69 | heav | O |
| ATOM | 1114 | O | SER | 1142 | 12.932 | 32.741 | 25.528 | 1.00 86.63 | heav | O |
| ATOM | 1115 | N | MET | 1143 | 14.750 | 32.055 | 26.618 | 1.00 56.61 | heav | O |
| ATOM | 1116 | CA | MET | 1143 | 15.661 | 32.160 | 25.472 | 1.00 56.61 | heav | O |
| ATOM | 1117 | CB | MET | 1143 | 16.678 | 33.221 | 25.764 | 1.00 48.34 | heav | O |
| ATOM | 1118 | CG | MET | 1143 | 16.155 | 34.540 | 26.263 | 1.00 48.34 | heav | O |
| ATOM | 1119 | SD | MET | 1143 | 15.612 | 35.574 | 24.890 | 1.00 48.34 | heav | O |
| ATOM | 1120 | CE | MET | 1143 | 14.095 | 36.366 | 25.358 | 1.00 48.34 | heav | O |
| ATOM | 1121 | C | MET | 1143 | 16.443 | 30.890 | 25.062 | 1.00 56.61 | heav | O |
| ATOM | 1122 | O | MET | 1143 | 16.797 | 30.045 | 25.873 | 1.00 48.34 | heav | O |
| ATOM | 1123 | N | VAL | 1144 | 16.831 | 30.712 | 23.810 | 1.00 23.87 | heav | O |
| ATOM | 1124 | CA | VAL | 1144 | 17.617 | 29.573 | 23.311 | 1.00 23.87 | heav | O |
| ATOM | 1125 | CB | VAL | 1144 | 16.887 | 28.647 | 22.339 | 1.00 15.07 | heav | O |
| ATOM | 1126 | CG1 | VAL | 1144 | 16.157 | 27.640 | 23.115 | 1.00 15.07 | heav | O |
| ATOM | 1127 | CG2 | VAL | 1144 | 15.791 | 29.353 | 21.579 | 1.00 15.07 | heav | O |
| ATOM | 1128 | C | VAL | 1144 | 18.758 | 30.161 | 22.522 | 1.00 23.87 | heav | O |
| ATOM | 1129 | O | VAL | 1144 | 18.574 | 31.193 | 21.859 | 1.00 15.07 | heav | O |
| ATOM | 1130 | N | THR | 1145 | 19.944 | 29.585 | 22.684 | 1.00 30.91 | heav | O |
| ATOM | 1131 | CA | THR | 1145 | 21.102 | 30.003 | 21.920 | 1.00 30.91 | heav | O |
| ATOM | 1132 | CB | THR | 1145 | 22.406 | 30.119 | 22.769 | 1.00 56.39 | heav | O |
| ATOM | 1133 | OG1 | THR | 1145 | 22.335 | 31.295 | 23.563 | 1.00 56.39 | heav | O |
| ATOM | 1134 | CG2 | THR | 1145 | 23.647 | 30.305 | 21.928 | 1.00 56.39 | heav | O |
| ATOM | 1135 | C | THR | 1145 | 21.248 | 28.858 | 20.951 | 1.00 30.91 | heav | O |
| ATOM | 1136 | O | THR | 1145 | 20.971 | 27.708 | 21.319 | 1.00 56.39 | heav | O |
| ATOM | 1137 | N | LEU | 1146 | 21.572 | 29.195 | 19.702 | 1.00  2.00 | heav | O |
| ATOM | 1138 | CA | LEU | 1146 | 21.851 | 28.205 | 18.682 | 1.00  2.00 | heav | O |
| ATOM | 1139 | CB | LEU | 1146 | 20.658 | 28.082 | 17.770 | 1.00 13.92 | heav | O |
| ATOM | 1140 | CG | LEU | 1146 | 19.279 | 27.808 | 18.384 | 1.00 13.92 | heav | O |
| ATOM | 1141 | CD1 | LEU | 1146 | 18.640 | 29.058 | 18.932 | 1.00 13.92 | heav | O |
| ATOM | 1142 | CD2 | LEU | 1146 | 18.272 | 27.540 | 17.301 | 1.00 13.92 | heav | O |
| ATOM | 1143 | C | LEU | 1146 | 23.068 | 28.787 | 17.973 | 1.00  2.00 | heav | O |
| ATOM | 1144 | O | LEU | 1146 | 23.345 | 29.998 | 18.149 | 1.00 13.92 | heav | O |
| ATOM | 1145 | N | GLY | 1147 | 23.855 | 27.993 | 17.236 | 1.00  2.00 | heav | O |
| ATOM | 1146 | CA | GLY | 1147 | 24.998 | 28.592 | 16.605 | 1.00  2.00 | heav | O |
| ATOM | 1147 | C | GLY | 1147 | 25.408 | 27.884 | 15.346 | 1.00  2.00 | heav | O |
| ATOM | 1148 | O | GLY | 1147 | 24.737 | 26.941 | 14.961 | 1.00 29.39 | heav | O |
| ATOM | 1149 | N | CYS | 1148 | 26.504 | 28.320 | 14.711 | 1.00  2.00 | heav | O |
| ATOM | 1150 | CA | CYS | 1148 | 27.071 | 27.688 | 13.537 | 1.00  2.00 | heav | O |

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| ATOM | 1151 | C | CYS | 1148 | 28.547 | 27.542 | 13.736 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1152 | O | CYS | 1148 | 29.212 | 28.400 | 14.313 | 1.00 | 26.31 | heav | 0 |
| ATOM | 1153 | CB | CYS | 1148 | 26.831 | 28.519 | 12.301 | 1.00 | 26.31 | heav | 0 |
| ATOM | 1154 | SG | CYS | 1148 | 25.193 | 28.137 | 11.637 | 1.00 | 26.31 | heav | 0 |
| ATOM | 1155 | N | LEU | 1149 | 29.012 | 26.401 | 13.311 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1156 | CA | LEU | 1149 | 30.393 | 26.052 | 13.377 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1157 | CB | LEU | 1149 | 30.494 | 24.648 | 13.894 | 1.00 | 12.90 | heav | 0 |
| ATOM | 1158 | CG | LEU | 1149 | 31.843 | 24.029 | 14.244 | 1.00 | 12.90 | heav | 0 |
| ATOM | 1159 | CD1 | LEU | 1149 | 32.659 | 23.912 | 13.021 | 1.00 | 12.90 | heav | 0 |
| ATOM | 1160 | CD2 | LEU | 1149 | 32.619 | 24.888 | 15.202 | 1.00 | 12.90 | heav | 0 |
| ATOM | 1161 | C | LEU | 1149 | 30.883 | 26.164 | 11.940 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1162 | O | LEU | 1149 | 30.324 | 25.515 | 11.060 | 1.00 | 12.90 | heav | 0 |
| ATOM | 1163 | N | VAL | 1150 | 31.926 | 26.928 | 11.669 | 1.00 | 14.74 | heav | 0 |
| ATOM | 1164 | CA | VAL | 1150 | 32.425 | 27.102 | 10.327 | 1.00 | 14.74 | heav | 0 |
| ATOM | 1165 | CB | VAL | 1150 | 32.320 | 28.574 | 9.962 | 1.00 | 19.45 | heav | 0 |
| ATOM | 1166 | CG1 | VAL | 1150 | 33.002 | 28.884 | 8.649 | 1.00 | 19.45 | heav | 0 |
| ATOM | 1167 | CG2 | VAL | 1150 | 30.880 | 28.896 | 9.727 | 1.00 | 19.45 | heav | 0 |
| ATOM | 1168 | C | VAL | 1150 | 33.856 | 26.629 | 10.453 | 1.00 | 14.74 | heav | 0 |
| ATOM | 1169 | O | VAL | 1150 | 34.727 | 27.392 | 10.900 | 1.00 | 19.45 | heav | 0 |
| ATOM | 1170 | N | LYS | 1151 | 34.126 | 25.380 | 10.073 | 1.00 | 14.64 | heav | 0 |
| ATOM | 1171 | CA | LYS | 1151 | 35.406 | 24.736 | 10.362 | 1.00 | 14.64 | heav | 0 |
| ATOM | 1172 | CB | LYS | 1151 | 35.159 | 23.353 | 10.969 | 1.00 | 50.78 | heav | 0 |
| ATOM | 1173 | CG | LYS | 1151 | 36.362 | 22.795 | 11.675 | 1.00 | 50.78 | heav | 0 |
| ATOM | 1174 | CD | LYS | 1151 | 36.216 | 21.452 | 12.372 | 1.00 | 50.78 | heav | 0 |
| ATOM | 1175 | CE | LYS | 1151 | 37.493 | 21.231 | 13.188 | 1.00 | 50.78 | heav | 0 |
| ATOM | 1176 | NZ | LYS | 1151 | 37.618 | 22.156 | 14.322 | 1.00 | 50.78 | heav | 0 |
| ATOM | 1177 | C | LYS | 1151 | 36.281 | 24.558 | 9.135 | 1.00 | 14.64 | heav | 0 |
| ATOM | 1178 | O | LYS | 1151 | 35.765 | 24.152 | 8.085 | 1.00 | 50.78 | heav | 0 |
| ATOM | 1179 | N | GLY | 1152 | 37.579 | 24.823 | 9.242 | 1.00 | 37.18 | heav | 0 |
| ATOM | 1180 | CA | GLY | 1152 | 38.555 | 24.440 | 8.236 | 1.00 | 37.18 | heav | 0 |
| ATOM | 1181 | C | GLY | 1152 | 38.519 | 25.110 | 6.886 | 1.00 | 37.18 | heav | 0 |
| ATOM | 1182 | O | GLY | 1152 | 38.626 | 24.405 | 5.892 | 1.00 | 21.57 | heav | 0 |
| ATOM | 1183 | N | TYR | 1153 | 38.414 | 26.429 | 6.787 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1184 | CA | TYR | 1153 | 38.473 | 27.135 | 5.493 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1185 | CB | TYR | 1153 | 37.346 | 28.079 | 5.369 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1186 | CG | TYR | 1153 | 37.345 | 29.095 | 6.478 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1187 | CD1 | TYR | 1153 | 38.016 | 30.264 | 6.252 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1188 | CE1 | TYR | 1153 | 38.025 | 31.249 | 7.212 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1189 | CD2 | TYR | 1153 | 36.674 | 28.879 | 7.665 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1190 | CE2 | TYR | 1153 | 36.662 | 29.854 | 8.636 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1191 | CZ | TYR | 1153 | 37.344 | 31.030 | 8.375 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1192 | OH | TYR | 1153 | 37.312 | 32.109 | 9.212 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1193 | C | TYR | 1153 | 39.768 | 27.945 | 5.455 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1194 | O | TYR | 1153 | 40.255 | 28.200 | 6.575 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1195 | N | PHE | 1154 | 40.277 | 28.464 | 4.322 | 1.00 | 5.05 | heav | 0 |
| ATOM | 1196 | CA | PHE | 1154 | 41.507 | 29.285 | 4.227 | 1.00 | 5.05 | heav | 0 |
| ATOM | 1197 | CB | PHE | 1154 | 42.745 | 28.495 | 4.072 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1198 | CG | PHE | 1154 | 44.039 | 29.272 | 4.159 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1199 | CD1 | PHE | 1154 | 44.733 | 29.570 | 3.022 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1200 | CD2 | PHE | 1154 | 44.587 | 29.611 | 5.380 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1201 | CE1 | PHE | 1154 | 45.970 | 30.198 | 3.126 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1202 | CE2 | PHE | 1154 | 45.815 | 30.230 | 5.477 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1203 | CZ | PHE | 1154 | 46.518 | 30.526 | 4.346 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1204 | C | PHE | 1154 | 41.395 | 30.052 | 2.940 | 1.00 | 5.05 | heav | 0 |
| ATOM | 1205 | O | PHE | 1154 | 40.781 | 29.450 | 2.068 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1206 | N | CPR | 1155 | 41.720 | 31.322 | 2.702 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1207 | CD | CPR | 1155 | 41.286 | 32.054 | 1.535 | 1.00 | 5.66 | heav | 0 |
| ATOM | 1208 | CA | CPR | 1155 | 42.238 | 32.312 | 3.632 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1209 | CB | CPR | 1155 | 42.793 | 33.416 | 2.837 | 1.00 | 5.66 | heav | 0 |
| ATOM | 1210 | CG | CPR | 1155 | 42.414 | 33.049 | 1.433 | 1.00 | 5.66 | heav | 0 |
| ATOM | 1211 | C | CPR | 1155 | 41.073 | 32.850 | 4.422 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1212 | O | CPR | 1155 | 39.946 | 32.392 | 4.212 | 1.00 | 5.66 | heav | 0 |
| ATOM | 1213 | N | GLU | 1156 | 41.337 | 33.812 | 5.323 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1214 | CA | GLU | 1156 | 40.258 | 34.589 | 5.928 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1215 | CB | GLU | 1156 | 40.806 | 35.549 | 6.923 | 1.00 | 29.74 | heav | 0 |
| ATOM | 1216 | CG | GLU | 1156 | 40.663 | 35.087 | 8.361 | 1.00 | 29.74 | heav | 0 |
| ATOM | 1217 | CD | GLU | 1156 | 39.298 | 35.280 | 9.081 | 1.00 | 29.74 | heav | 0 |

| | | | | | | | | | | | |
|------|------|-----|-----|------|--------|--------|--------|------|-------|------|---|
| ATOM | 1218 | OE1 | GLU | 1156 | 39.275 | 35.948 | 10.138 | 1.00 | 29.74 | heav | O |
| ATOM | 1219 | OE2 | GLU | 1156 | 38.267 | 34.742 | 8.621 | 1.00 | 29.74 | heav | O |
| ATOM | 1220 | C | GLU | 1156 | 39.687 | 35.367 | 4.757 | 1.00 | 2.00 | heav | O |
| ATOM | 1221 | O | GLU | 1156 | 40.355 | 35.391 | 3.719 | 1.00 | 29.74 | heav | O |
| ATOM | 1222 | N | CPR | 1157 | 38.527 | 35.987 | 4.711 | 1.00 | 21.40 | heav | O |
| ATOM | 1223 | CD | CPR | 1157 | 38.405 | 37.219 | 3.977 | 1.00 | 9.41 | heav | O |
| ATOM | 1224 | CA | CPR | 1157 | 37.498 | 36.074 | 5.719 | 1.00 | 21.40 | heav | O |
| ATOM | 1225 | CB | CPR | 1157 | 37.238 | 37.498 | 5.855 | 1.00 | 9.41 | heav | O |
| ATOM | 1226 | CG | CPR | 1157 | 37.116 | 37.841 | 4.440 | 1.00 | 9.41 | heav | O |
| ATOM | 1227 | C | CPR | 1157 | 36.218 | 35.332 | 5.370 | 1.00 | 21.40 | heav | O |
| ATOM | 1228 | O | CPR | 1157 | 36.097 | 34.830 | 4.237 | 1.00 | 9.41 | heav | O |
| ATOM | 1229 | N | VAL | 1158 | 35.285 | 35.276 | 6.329 | 1.00 | 2.00 | heav | O |
| ATOM | 1230 | CA | VAL | 1158 | 34.038 | 34.620 | 6.103 | 1.00 | 2.00 | heav | O |
| ATOM | 1231 | CB | VAL | 1158 | 33.993 | 33.336 | 6.933 | 1.00 | 2.00 | heav | O |
| ATOM | 1232 | CG1 | VAL | 1158 | 32.669 | 32.695 | 6.701 | 1.00 | 2.00 | heav | O |
| ATOM | 1233 | CG2 | VAL | 1158 | 34.904 | 32.265 | 6.421 | 1.00 | 2.00 | heav | O |
| ATOM | 1234 | C | VAL | 1158 | 33.017 | 35.648 | 6.569 | 1.00 | 2.00 | heav | O |
| ATOM | 1235 | O | VAL | 1158 | 33.240 | 36.474 | 7.472 | 1.00 | 2.00 | heav | O |
| ATOM | 1236 | N | THR | 1159 | 31.907 | 35.678 | 5.869 | 1.00 | 2.00 | heav | O |
| ATOM | 1237 | CA | THR | 1159 | 30.781 | 36.432 | 6.323 | 1.00 | 2.00 | heav | O |
| ATOM | 1238 | CB | THR | 1159 | 30.293 | 37.165 | 5.118 | 1.00 | 47.02 | heav | O |
| ATOM | 1239 | OG1 | THR | 1159 | 31.120 | 38.314 | 5.111 | 1.00 | 47.02 | heav | O |
| ATOM | 1240 | CG2 | THR | 1159 | 28.801 | 37.455 | 5.086 | 1.00 | 47.02 | heav | O |
| ATOM | 1241 | C | THR | 1159 | 29.806 | 35.396 | 6.858 | 1.00 | 2.00 | heav | O |
| ATOM | 1242 | O | THR | 1159 | 29.651 | 34.292 | 6.307 | 1.00 | 47.02 | heav | O |
| ATOM | 1243 | N | VAL | 1160 | 29.134 | 35.747 | 7.931 | 1.00 | 2.00 | heav | O |
| ATOM | 1244 | CA | VAL | 1160 | 28.091 | 34.871 | 8.377 | 1.00 | 2.00 | heav | O |
| ATOM | 1245 | CB | VAL | 1160 | 28.673 | 33.947 | 9.448 | 1.00 | 2.00 | heav | O |
| ATOM | 1246 | CG1 | VAL | 1160 | 29.409 | 34.781 | 10.415 | 1.00 | 2.00 | heav | O |
| ATOM | 1247 | CG2 | VAL | 1160 | 27.618 | 33.203 | 10.210 | 1.00 | 2.00 | heav | O |
| ATOM | 1248 | C | VAL | 1160 | 26.940 | 35.724 | 8.860 | 1.00 | 2.00 | heav | O |
| ATOM | 1249 | O | VAL | 1160 | 27.173 | 36.696 | 9.581 | 1.00 | 2.00 | heav | O |
| ATOM | 1250 | N | THR | 1161 | 25.718 | 35.488 | 8.396 | 1.00 | 2.00 | heav | O |
| ATOM | 1251 | CA | THR | 1161 | 24.607 | 36.235 | 8.917 | 1.00 | 2.00 | heav | O |
| ATOM | 1252 | CB | THR | 1161 | 23.980 | 37.107 | 7.843 | 1.00 | 12.33 | heav | O |
| ATOM | 1253 | OG1 | THR | 1161 | 23.562 | 36.262 | 6.798 | 1.00 | 12.33 | heav | O |
| ATOM | 1254 | CG2 | THR | 1161 | 24.939 | 38.151 | 7.349 | 1.00 | 12.33 | heav | O |
| ATOM | 1255 | C | THR | 1161 | 23.579 | 35.275 | 9.439 | 1.00 | 2.00 | heav | O |
| ATOM | 1256 | O | THR | 1161 | 23.723 | 34.077 | 9.225 | 1.00 | 12.33 | heav | O |
| ATOM | 1257 | N | TRP | 1162 | 22.579 | 35.781 | 10.126 | 1.00 | 22.46 | heav | O |
| ATOM | 1258 | CA | TRP | 1162 | 21.590 | 34.876 | 10.611 | 1.00 | 22.46 | heav | O |
| ATOM | 1259 | CB | TRP | 1162 | 21.509 | 35.002 | 12.079 | 1.00 | 2.00 | heav | O |
| ATOM | 1260 | CG | TRP | 1162 | 22.541 | 34.012 | 12.578 | 1.00 | 2.00 | heav | O |
| ATOM | 1261 | CD2 | TRP | 1162 | 22.388 | 32.682 | 12.842 | 1.00 | 2.00 | heav | O |
| ATOM | 1262 | CE2 | TRP | 1162 | 23.602 | 32.336 | 13.410 | 1.00 | 2.00 | heav | O |
| ATOM | 1263 | CE3 | TRP | 1162 | 21.436 | 31.750 | 12.701 | 1.00 | 2.00 | heav | O |
| ATOM | 1264 | CD1 | TRP | 1162 | 23.803 | 34.428 | 12.935 | 1.00 | 2.00 | heav | O |
| ATOM | 1265 | NE1 | TRP | 1162 | 24.429 | 33.391 | 13.465 | 1.00 | 2.00 | heav | O |
| ATOM | 1266 | CZ2 | TRP | 1162 | 23.915 | 31.068 | 13.863 | 1.00 | 2.00 | heav | O |
| ATOM | 1267 | CZ3 | TRP | 1162 | 21.719 | 30.477 | 13.136 | 1.00 | 2.00 | heav | O |
| ATOM | 1268 | CH2 | TRP | 1162 | 22.937 | 30.118 | 13.714 | 1.00 | 2.00 | heav | O |
| ATOM | 1269 | C | TRP | 1162 | 20.318 | 35.278 | 9.954 | 1.00 | 22.46 | heav | O |
| ATOM | 1270 | O | TRP | 1162 | 19.983 | 36.471 | 9.952 | 1.00 | 2.00 | heav | O |
| ATOM | 1271 | N | ASN | 1163 | 19.660 | 34.314 | 9.307 | 1.00 | 9.02 | heav | O |
| ATOM | 1272 | CA | ASN | 1163 | 18.405 | 34.502 | 8.605 | 1.00 | 9.02 | heav | O |
| ATOM | 1273 | CB | ASN | 1163 | 17.256 | 34.817 | 9.568 | 1.00 | 18.39 | heav | O |
| ATOM | 1274 | CG | ASN | 1163 | 16.513 | 33.626 | 10.110 | 1.00 | 18.39 | heav | O |
| ATOM | 1275 | OD1 | ASN | 1163 | 16.962 | 32.489 | 10.038 | 1.00 | 18.39 | heav | O |
| ATOM | 1276 | ND2 | ASN | 1163 | 15.355 | 33.854 | 10.680 | 1.00 | 18.39 | heav | O |
| ATOM | 1277 | C | ASN | 1163 | 18.643 | 35.694 | 7.703 | 1.00 | 9.02 | heav | O |
| ATOM | 1278 | O | ASN | 1163 | 18.028 | 36.732 | 7.880 | 1.00 | 18.39 | heav | O |
| ATOM | 1279 | N | SER | 1164 | 19.716 | 35.677 | 6.917 | 1.00 | 24.18 | heav | O |
| ATOM | 1280 | CA | SER | 1164 | 19.985 | 36.701 | 5.891 | 1.00 | 24.18 | heav | O |
| ATOM | 1281 | CB | SER | 1164 | 19.039 | 36.511 | 4.706 | 1.00 | 43.98 | heav | O |
| ATOM | 1282 | OG | SER | 1164 | 18.893 | 35.127 | 4.350 | 1.00 | 43.98 | heav | O |
| ATOM | 1283 | C | SER | 1164 | 19.881 | 38.137 | 6.344 | 1.00 | 24.18 | heav | O |
| ATOM | 1284 | O | SER | 1164 | 19.254 | 38.988 | 5.715 | 1.00 | 43.98 | heav | O |

| ATOM | 1285 | N | GLY | 1165 | 20.404 | 38.344 | 7.543 | 1.00 | 16.20 | heav | O |
|------|------|------|-----|------|--------|--------|--------|------|-------|------|---|
| ATOM | 1286 | CA | GLY | 1165 | 20.487 | 39.687 | 8.068 | 1.00 | 16.20 | heav | O |
| ATOM | 1287 | C | GLY | 1165 | 19.365 | 40.045 | 9.006 | 1.00 | 16.20 | heav | O |
| ATOM | 1288 | O | GLY | 1165 | 19.581 | 40.974 | 9.801 | 1.00 | 32.84 | heav | O |
| ATOM | 1289 | N | SER | 1166 | 18.228 | 39.315 | 8.940 | 1.00 | 15.60 | heav | O |
| ATOM | 1290 | CA | SER | 1166 | 17.014 | 39.586 | 9.736 | 1.00 | 15.60 | heav | O |
| ATOM | 1291 | CB | SER | 1166 | 15.823 | 38.686 | 9.381 | 1.00 | 44.88 | heav | O |
| ATOM | 1292 | OG | SER | 1166 | 15.608 | 38.354 | 8.010 | 1.00 | 44.88 | heav | O |
| ATOM | 1293 | C | SER | 1166 | 17.165 | 39.413 | 11.231 | 1.00 | 15.60 | heav | O |
| ATOM | 1294 | O | SER | 1166 | 16.419 | 40.002 | 12.018 | 1.00 | 44.88 | heav | O |
| ATOM | 1295 | N | LEU | 1167 | 18.007 | 38.476 | 11.653 | 1.00 | 25.34 | heav | O |
| ATOM | 1296 | CA | LEU | 1167 | 18.283 | 38.427 | 13.065 | 1.00 | 25.34 | heav | O |
| ATOM | 1297 | CB | LEU | 1167 | 18.453 | 36.992 | 13.496 | 1.00 | 33.91 | heav | O |
| ATOM | 1298 | CG | LEU | 1167 | 17.339 | 36.018 | 13.184 | 1.00 | 33.91 | heav | O |
| ATOM | 1299 | CD1 | LEU | 1167 | 17.524 | 34.919 | 14.198 | 1.00 | 33.91 | heav | O |
| ATOM | 1300 | CD2 | LEU | 1167 | 15.914 | 36.603 | 13.290 | 1.00 | 33.91 | heav | O |
| ATOM | 1301 | C | LEU | 1167 | 19.574 | 39.239 | 13.181 | 1.00 | 25.34 | heav | O |
| ATOM | 1302 | O | LEU | 1167 | 20.632 | 38.939 | 12.600 | 1.00 | 33.91 | heav | O |
| ATOM | 1303 | N | SER | 1168 | 19.406 | 40.358 | 13.874 | 1.00 | 55.04 | heav | O |
| ATOM | 1304 | CA | SER | 1168 | 20.489 | 41.299 | 14.061 | 1.00 | 55.04 | heav | O |
| ATOM | 1305 | CB | SER | 1168 | 19.981 | 42.667 | 13.578 | 1.00 | 72.64 | heav | O |
| ATOM | 1306 | OG | SER | 1168 | 19.380 | 42.696 | 12.276 | 1.00 | 72.64 | heav | O |
| ATOM | 1307 | C | SER | 1168 | 20.945 | 41.341 | 15.519 | 1.00 | 55.04 | heav | O |
| ATOM | 1308 | O | SER | 1168 | 22.082 | 41.691 | 15.841 | 1.00 | 72.64 | heav | O |
| ATOM | 1309 | N | SER | 1169 | 20.070 | 40.936 | 16.443 | 1.00 | 33.75 | heav | O |
| ATOM | 1310 | CA | SER | 1169 | 20.282 | 41.008 | 17.888 | 1.00 | 33.75 | heav | O |
| ATOM | 1311 | CB | SER | 1169 | 19.038 | 41.597 | 18.510 | 1.00 | 72.46 | heav | O |
| ATOM | 1312 | OG | SER | 1169 | 18.356 | 42.392 | 17.534 | 1.00 | 72.46 | heav | O |
| ATOM | 1313 | C | SER | 1169 | 20.533 | 39.622 | 18.442 | 1.00 | 33.75 | heav | O |
| ATOM | 1314 | O | SER | 1169 | 19.902 | 38.654 | 18.027 | 1.00 | 72.46 | heav | O |
| ATOM | 1315 | N | GLY | 1170 | 21.493 | 39.485 | 19.328 | 1.00 | 2.00 | heav | O |
| ATOM | 1316 | CA | GLY | 1170 | 21.726 | 38.191 | 19.948 | 1.00 | 2.00 | heav | O |
| ATOM | 1317 | C | GLY | 1170 | 22.836 | 37.397 | 19.298 | 1.00 | 2.00 | heav | O |
| ATOM | 1318 | O | GLY | 1170 | 23.306 | 36.364 | 19.802 | 1.00 | 57.43 | heav | O |
| ATOM | 1319 | N | VAL | 1171 | 23.239 | 37.954 | 18.188 | 1.00 | 17.93 | heav | O |
| ATOM | 1320 | CA | VAL | 1171 | 24.264 | 37.360 | 17.413 | 1.00 | 17.93 | heav | O |
| ATOM | 1321 | CB | VAL | 1171 | 23.987 | 37.895 | 16.038 | 1.00 | 21.68 | heav | O |
| ATOM | 1322 | CG1 | VAL | 1171 | 24.461 | 39.362 | 15.936 | 1.00 | 21.68 | heav | O |
| ATOM | 1323 | CG2 | VAL | 1171 | 24.682 | 37.024 | 15.039 | 1.00 | 21.68 | heav | O |
| ATOM | 1324 | C | VAL | 1171 | 25.662 | 37.681 | 17.963 | 1.00 | 17.93 | heav | O |
| ATOM | 1325 | O | VAL | 1171 | 25.908 | 38.796 | 18.433 | 1.00 | 21.68 | heav | O |
| ATOM | 1326 | N | HIS | 1172 | 26.586 | 36.719 | 17.981 | 1.00 | 14.15 | heav | O |
| ATOM | 1327 | CA | HIS | 1172 | 27.983 | 36.943 | 18.312 | 1.00 | 14.15 | heav | O |
| ATOM | 1328 | CB | HIS | 1172 | 28.459 | 36.363 | 19.588 | 1.00 | 25.27 | heav | O |
| ATOM | 1329 | CG | HIS | 1172 | 27.778 | 37.002 | 20.745 | 1.00 | 25.27 | heav | O |
| ATOM | 1330 | CD2 | HIS | 1172 | 27.667 | 38.343 | 20.981 | 1.00 | 25.27 | heav | O |
| ATOM | 1331 | ND1 | HIS | 1172 | 27.126 | 36.362 | 21.681 | 1.00 | 25.27 | heav | O |
| ATOM | 1332 | CE1 | HIS | 1172 | 26.607 | 37.258 | 22.474 | 1.00 | 25.27 | heav | O |
| ATOM | 1333 | NE2 | HIS | 1172 | 26.937 | 38.455 | 22.054 | 1.00 | 25.27 | heav | O |
| ATOM | 1334 | C | HIS | 1172 | 28.700 | 36.142 | 17.285 | 1.00 | 14.15 | heav | O |
| ATOM | 1335 | O | HIS | 1172 | 28.281 | 35.035 | 16.965 | 1.00 | 25.27 | heav | O |
| ATOM | 1336 | N | THR | 1173 | 29.808 | 36.671 | 16.829 | 1.00 | 2.00 | heav | O |
| ATOM | 1337 | CA | THR | 1173 | 30.553 | 35.970 | 15.823 | 1.00 | 2.00 | heav | O |
| ATOM | 1338 | CB | THR | 1173 | 29.993 | 36.597 | 14.529 | 1.00 | 21.58 | heav | O |
| ATOM | 1339 | OG1 | THR | 1173 | 30.714 | 36.026 | 13.446 | 1.00 | 21.58 | heav | O |
| ATOM | 1340 | CG2 | THR | 1173 | 30.054 | 38.143 | 14.563 | 1.00 | 21.58 | heav | O |
| ATOM | 1341 | C | THR | 1173 | 32.044 | 36.171 | 16.184 | 1.00 | 2.00 | heav | O |
| ATOM | 1342 | O | THR | 1173 | 32.596 | 37.277 | 16.347 | 1.00 | 21.58 | heav | O |
| ATOM | 1343 | N | PHE | 1174 | 32.635 | 35.011 | 16.462 | 1.00 | 2.00 | heav | O |
| ATOM | 1344 | CA | PHE | 1174 | 33.939 | 34.917 | 17.112 | 1.00 | 2.00 | heav | O |
| ATOM | 1345 | CB | PHE | 1174 | 34.014 | 33.675 | 17.957 | 1.00 | 22.42 | heav | O |
| ATOM | 1346 | CG | PHE | 1174 | 32.842 | 33.546 | 18.899 | 1.00 | 22.42 | heav | O |
| ATOM | 1347 | CD1 | PHE | 1174 | 32.929 | 34.036 | 20.166 | 1.00 | 22.42 | heav | O |
| ATOM | 1348 | CD2 | PHE | 1174 | 31.683 | 32.951 | 18.497 | 1.00 | 22.42 | heav | O |
| ATOM | 1349 | CE1 | PHE | 1174 | 31.869 | 33.940 | 21.041 | 1.00 | 22.42 | heav | O |
| ATOM | 1350 | CE2 | PHE | 1174 | 30.621 | 32.856 | 19.367 | 1.00 | 22.42 | heav | O |
| ATOM | 1351 | CZ | PHE | 1174 | 30.704 | 33.347 | 20.641 | 1.00 | 22.42 | heav | O |

| ATOM | 1352 | C   | PHE  | 1174 | 35.067 | 34.864 | 16.107 | 1.00 | 2.00  | heav | O |
|------|------|-----|------|------|--------|--------|--------|------|-------|------|---|
| ATOM | 1353 | O   | PHE  | 1174 | 34.914 | 34.226 | 15.054 | 1.00 | 22.42 | heav | O |
| ATOM | 1354 | N   | PRO  | 1175 | 36.191 | 35.551 | 16.372 | 1.00 | 2.00  | heav | O |
| ATOM | 1355 | CD  | PRO  | 1175 | 36.166 | 36.897 | 16.897 | 1.00 | 15.62 | heav | O |
| ATOM | 1356 | CA  | PRO  | 1175 | 37.364 | 35.587 | 15.521 | 1.00 | 2.00  | heav | O |
| ATOM | 1357 | CB  | PRO  | 1175 | 38.423 | 36.283 | 16.308 | 1.00 | 15.62 | heav | O |
| ATOM | 1358 | CG  | PRO  | 1175 | 37.624 | 37.149 | 17.209 | 1.00 | 15.62 | heav | O |
| ATOM | 1359 | C   | PRO  | 1175 | 37.789 | 34.231 | 15.110 | 1.00 | 2.00  | heav | O |
| ATOM | 1360 | O   | PRO  | 1175 | 37.685 | 33.281 | 15.898 | 1.00 | 15.62 | heav | O |
| ATOM | 1361 | N   | ALA  | 1176 | 38.162 | 34.179 | 13.839 | 1.00 | 2.00  | heav | O |
| ATOM | 1362 | CA  | ALA  | 1176 | 38.647 | 32.928 | 13.311 | 1.00 | 2.00  | heav | O |
| ATOM | 1363 | CB  | ALA  | 1176 | 38.916 | 33.044 | 11.858 | 1.00 | 28.97 | heav | O |
| ATOM | 1364 | C   | ALA  | 1176 | 39.956 | 32.717 | 14.027 | 1.00 | 2.00  | heav | O |
| ATOM | 1365 | O   | ALA  | 1176 | 40.623 | 33.725 | 14.300 | 1.00 | 28.97 | heav | O |
| ATOM | 1366 | N   | VAL  | 1177 | 40.281 | 31.446 | 14.308 | 1.00 | 29.29 | heav | O |
| ATOM | 1367 | CA  | VAL  | 1177 | 41.507 | 31.021 | 14.966 | 1.00 | 29.29 | heav | O |
| ATOM | 1368 | CB  | VAL  | 1177 | 41.093 | 30.571 | 16.423 | 1.00 | 16.19 | heav | O |
| ATOM | 1369 | CG1 | VAL  | 1177 | 40.195 | 29.345 | 16.420 | 1.00 | 16.19 | heav | O |
| ATOM | 1370 | CG2 | VAL  | 1177 | 42.330 | 30.212 | 17.221 | 1.00 | 16.19 | heav | O |
| ATOM | 1371 | C   | VAL  | 1177 | 42.120 | 29.923 | 14.095 | 1.00 | 29.29 | heav | O |
| ATOM | 1372 | O   | VAL  | 1177 | 41.393 | 29.181 | 13.412 | 1.00 | 16.19 | heav | O |
| ATOM | 1373 | N   | LEU  | 1178 | 43.454 | 29.847 | 14.061 | 1.00 | 25.21 | heav | O |
| ATOM | 1374 | CA  | LEU  | 1178 | 44.180 | 28.855 | 13.255 | 1.00 | 25.21 | heav | O |
| ATOM | 1375 | CB  | LEU  | 1178 | 45.478 | 29.435 | 12.791 | 1.00 | 38.27 | heav | O |
| ATOM | 1376 | CG  | LEU  | 1178 | 45.416 | 29.839 | 11.347 | 1.00 | 38.27 | heav | O |
| ATOM | 1377 | CD1 | LEU  | 1178 | 46.679 | 30.529 | 10.887 | 1.00 | 38.27 | heav | O |
| ATOM | 1378 | CD2 | LEU  | 1178 | 45.309 | 28.593 | 10.525 | 1.00 | 38.27 | heav | O |
| ATOM | 1379 | C   | LEU  | 1178 | 44.501 | 27.479 | 13.827 | 1.00 | 25.21 | heav | O |
| ATOM | 1380 | O   | LEU  | 1178 | 44.862 | 27.344 | 14.986 | 1.00 | 38.27 | heav | O |
| ATOM | 1381 | N   | GLN  | 1179 | 44.417 | 26.459 | 12.976 | 1.00 | 51.54 | heav | O |
| ATOM | 1382 | CA  | GLN  | 1179 | 44.583 | 25.042 | 13.297 | 1.00 | 51.54 | heav | O |
| ATOM | 1383 | CB  | GLN  | 1179 | 43.241 | 24.291 | 13.136 | 1.00 | 78.52 | heav | O |
| ATOM | 1384 | CG  | GLN  | 1179 | 42.225 | 24.344 | 14.262 | 1.00 | 78.52 | heav | O |
| ATOM | 1385 | CD  | GLN  | 1179 | 42.581 | 23.417 | 15.421 | 1.00 | 78.52 | heav | O |
| ATOM | 1386 | OE1 | GLN  | 1179 | 43.727 | 23.340 | 15.866 | 1.00 | 78.52 | heav | O |
| ATOM | 1387 | NE2 | GLN  | 1179 | 41.630 | 22.663 | 15.972 | 1.00 | 78.52 | heav | O |
| ATOM | 1388 | C   | GLN  | 1179 | 45.560 | 24.530 | 12.262 | 1.00 | 51.54 | heav | O |
| ATOM | 1389 | O   | GLN  | 1179 | 45.196 | 23.745 | 11.396 | 1.00 | 78.52 | heav | O |
| ATOM | 1390 | N   | SER  | 1180 | 46.791 | 25.027 | 12.284 | 1.00 | 54.18 | heav | O |
| ATOM | 1391 | CA  | SER  | 1180 | 47.801 | 24.717 | 11.276 | 1.00 | 54.18 | heav | O |
| ATOM | 1392 | CB  | SER  | 1180 | 48.382 | 23.349 | 11.620 | 1.00 | 74.40 | heav | O |
| ATOM | 1393 | OG  | SER  | 1180 | 49.248 | 23.628 | 12.727 | 1.00 | 74.40 | heav | O |
| ATOM | 1394 | C   | SER  | 1180 | 47.298 | 24.802 | 9.825  | 1.00 | 54.18 | heav | O |
| ATOM | 1395 | O   | SER  | 1180 | 46.767 | 23.926 | 9.147  | 1.00 | 74.40 | heav | O |
| ATOM | 1396 | N   | ASP  | 1181 | 47.411 | 26.083 | 9.476  | 1.00 | 80.38 | heav | O |
| ATOM | 1397 | CA  | ASP  | 1181 | 46.969 | 26.670 | 8.224  | 1.00 | 80.38 | heav | O |
| ATOM | 1398 | CB  | ASP  | 1181 | 47.961 | 26.289 | 7.095  | 1.00 | 77.24 | heav | O |
| ATOM | 1399 | CG  | ASP  | 1181 | 49.194 | 27.228 | 7.105  | 1.00 | 77.24 | heav | O |
| ATOM | 1400 | OD1 | ASP  | 1181 | 50.282 | 26.756 | 7.456  | 1.00 | 77.24 | heav | O |
| ATOM | 1401 | OD2 | ASP  | 1181 | 49.080 | 28.425 | 6.777  | 1.00 | 77.24 | heav | O |
| ATOM | 1402 | C   | ASP  | 1181 | 45.540 | 26.395 | 7.808  | 1.00 | 80.38 | heav | O |
| ATOM | 1403 | O   | ASP  | 1181 | 45.177 | 26.476 | 6.642  | 1.00 | 77.24 | heav | O |
| ATOM | 1404 | N   | LEU  | 1182 | 44.709 | 26.149 | 8.819  | 1.00 | 38.33 | heav | O |
| ATOM | 1405 | CA  | LEU  | 1182 | 43.282 | 26.178 | 8.602  | 1.00 | 38.33 | heav | O |
| ATOM | 1406 | CB  | LEU  | 1182 | 42.802 | 24.780 | 8.401  | 1.00 | 45.53 | heav | O |
| ATOM | 1407 | CG  | LEU  | 1182 | 42.863 | 24.397 | 6.941  | 1.00 | 45.53 | heav | O |
| ATOM | 1408 | CD1 | LEU  | 1182 | 42.277 | 23.028 | 6.839  | 1.00 | 45.53 | heav | O |
| ATOM | 1409 | CD2 | LEU  | 1182 | 42.087 | 25.356 | 6.042  | 1.00 | 45.53 | heav | O |
| ATOM | 1410 | C   | LEU  | 1182 | 42.420 | 26.875 | 9.669  | 1.00 | 38.33 | heav | O |
| ATOM | 1411 | O   | LEU  | 1182 | 42.677 | 26.792 | 10.878 | 1.00 | 45.53 | heav | O |
| ATOM | 1412 | N   | TYR  | 1183 | 41.394 | 27.618 | 9.247  | 1.00 | 2.00  | heav | O |
| ATOM | 1413 | CA  | TYR  | 1183 | 40.668 | 28.436 | 10.182 | 1.00 | 2.00  | heav | O |
| ATOM | 1414 | CB  | TYR  | 1183 | 40.240 | 29.673 | 9.467  | 1.00 | 23.74 | heav | O |
| ATOM | 1415 | CG  | TYR  | 1183 | 41.398 | 30.613 | 9.221  | 1.00 | 23.74 | heav | O |
| ATOM | 1416 | CD1 | TYR  | 1183 | 41.822 | 31.398 | 10.257 | 1.00 | 23.74 | heav | O |
| ATOM | 1417 | CE1 | TYR  | 1183 | 42.840 | 32.309 | 10.075 | 1.00 | 23.74 | heav | O |
| ATOM | 1418 | CD2 | TYR  | 1183 | 42.009 | 30.721 | 7.991  | 1.00 | 23.74 | heav | O |

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| ATOM | 1419 | CE2 | TYR | 1183 | 43.028 | 31.635 | 7.804 | 1.00 | 23.74 | heav | O |
|------|------|-----|-----|------|--------|--------|-------|------|-------|------|---|
| ATOM | 1420 | CZ | TYR | 1183 | 43.451 | 32.431 | 8.852 | 1.00 | 23.74 | heav | O |
| ATOM | 1421 | OH | TYR | 1183 | 44.479 | 33.375 | 8.699 | 1.00 | 23.74 | heav | O |
| ATOM | 1422 | C | TYR | 1183 | 39.465 | 27.793 | 10.805 | 1.00 | 2.00 | heav | O |
| ATOM | 1423 | O | TYR | 1183 | 38.830 | 27.066 | 10.048 | 1.00 | 23.74 | heav | O |
| ATOM | 1424 | N | THR | 1184 | 39.104 | 27.946 | 12.080 | 1.00 | 2.00 | heav | O |
| ATOM | 1425 | CA | THR | 1184 | 37.772 | 27.555 | 12.547 | 1.00 | 2.00 | heav | O |
| ATOM | 1426 | CB | THR | 1184 | 37.923 | 26.500 | 13.580 | 1.00 | 28.60 | heav | O |
| ATOM | 1427 | OG1 | THR | 1184 | 38.473 | 25.425 | 12.850 | 1.00 | 28.60 | heav | O |
| ATOM | 1428 | CG2 | THR | 1184 | 36.670 | 26.065 | 14.245 | 1.00 | 28.60 | heav | O |
| ATOM | 1429 | C | THR | 1184 | 37.066 | 28.774 | 13.127 | 1.00 | 2.00 | heav | O |
| ATOM | 1430 | O | THR | 1184 | 37.727 | 29.616 | 13.751 | 1.00 | 28.60 | heav | O |
| ATOM | 1431 | N | LEU | 1185 | 35.757 | 28.952 | 12.942 | 1.00 | 14.81 | heav | O |
| ATOM | 1432 | CA | LEU | 1185 | 35.054 | 30.120 | 13.440 | 1.00 | 14.81 | heav | O |
| ATOM | 1433 | CB | LEU | 1185 | 34.924 | 31.062 | 12.311 | 1.00 | 18.29 | heav | O |
| ATOM | 1434 | CG | LEU | 1185 | 34.168 | 32.345 | 12.458 | 1.00 | 18.29 | heav | O |
| ATOM | 1435 | CD1 | LEU | 1185 | 34.848 | 33.439 | 11.673 | 1.00 | 18.29 | heav | O |
| ATOM | 1436 | CD2 | LEU | 1185 | 32.771 | 32.179 | 11.872 | 1.00 | 18.29 | heav | O |
| ATOM | 1437 | C | LEU | 1185 | 33.726 | 29.638 | 13.920 | 1.00 | 14.81 | heav | O |
| ATOM | 1438 | O | LEU | 1185 | 33.321 | 28.553 | 13.519 | 1.00 | 18.29 | heav | O |
| ATOM | 1439 | N | SER | 1186 | 33.054 | 30.439 | 14.724 | 1.00 | 2.00 | heav | O |
| ATOM | 1440 | CA | SER | 1186 | 31.780 | 30.049 | 15.281 | 1.00 | 2.00 | heav | O |
| ATOM | 1441 | CB | SER | 1186 | 31.982 | 29.414 | 16.638 | 1.00 | 22.72 | heav | O |
| ATOM | 1442 | OG | SER | 1186 | 33.358 | 29.349 | 17.000 | 1.00 | 22.72 | heav | O |
| ATOM | 1443 | C | SER | 1186 | 30.909 | 31.300 | 15.436 | 1.00 | 2.00 | heav | O |
| ATOM | 1444 | O | SER | 1186 | 31.459 | 32.405 | 15.570 | 1.00 | 22.72 | heav | O |
| ATOM | 1445 | N | SER | 1187 | 29.584 | 31.183 | 15.463 | 1.00 | 2.00 | heav | O |
| ATOM | 1446 | CA | SER | 1187 | 28.722 | 32.311 | 15.658 | 1.00 | 2.00 | heav | O |
| ATOM | 1447 | CB | SER | 1187 | 28.227 | 32.790 | 14.366 | 1.00 | 15.89 | heav | O |
| ATOM | 1448 | OG | SER | 1187 | 27.062 | 33.594 | 14.499 | 1.00 | 15.89 | heav | O |
| ATOM | 1449 | C | SER | 1187 | 27.576 | 31.803 | 16.464 | 1.00 | 2.00 | heav | O |
| ATOM | 1450 | O | SER | 1187 | 27.285 | 30.620 | 16.300 | 1.00 | 15.89 | heav | O |
| ATOM | 1451 | N | SER | 1188 | 26.943 | 32.645 | 17.271 | 1.00 | 11.76 | heav | O |
| ATOM | 1452 | CA | SER | 1188 | 25.815 | 32.265 | 18.073 | 1.00 | 11.76 | heav | O |
| ATOM | 1453 | CB | SER | 1188 | 26.175 | 32.313 | 19.544 | 1.00 | 24.89 | heav | O |
| ATOM | 1454 | OG | SER | 1188 | 25.811 | 33.526 | 20.249 | 1.00 | 24.89 | heav | O |
| ATOM | 1455 | C | SER | 1188 | 24.672 | 33.246 | 17.838 | 1.00 | 11.76 | heav | O |
| ATOM | 1456 | O | SER | 1188 | 24.896 | 34.432 | 17.595 | 1.00 | 24.89 | heav | O |
| ATOM | 1457 | N | VAL | 1189 | 23.425 | 32.813 | 17.973 | 1.00 | 28.93 | heav | O |
| ATOM | 1458 | CA | VAL | 1189 | 22.297 | 33.737 | 18.073 | 1.00 | 28.93 | heav | O |
| ATOM | 1459 | CB | VAL | 1189 | 21.279 | 33.700 | 17.019 | 1.00 | 19.59 | heav | O |
| ATOM | 1460 | CG1 | VAL | 1189 | 20.411 | 34.916 | 17.052 | 1.00 | 19.59 | heav | O |
| ATOM | 1461 | CG2 | VAL | 1189 | 21.957 | 33.652 | 15.767 | 1.00 | 19.59 | heav | O |
| ATOM | 1462 | C | VAL | 1189 | 21.442 | 33.274 | 19.235 | 1.00 | 28.93 | heav | O |
| ATOM | 1463 | O | VAL | 1189 | 21.122 | 32.067 | 19.242 | 1.00 | 19.59 | heav | O |
| ATOM | 1464 | N | THR | 1190 | 21.090 | 34.185 | 20.156 | 1.00 | 21.62 | heav | O |
| ATOM | 1465 | CA | THR | 1190 | 20.109 | 33.917 | 21.188 | 1.00 | 21.62 | heav | O |
| ATOM | 1466 | CB | THR | 1190 | 20.604 | 34.554 | 22.470 | 1.00 | 15.87 | heav | O |
| ATOM | 1467 | OG1 | THR | 1190 | 21.163 | 33.473 | 23.197 | 1.00 | 15.87 | heav | O |
| ATOM | 1468 | CG2 | THR | 1190 | 19.549 | 35.239 | 23.298 | 1.00 | 15.87 | heav | O |
| ATOM | 1469 | C | THR | 1190 | 18.777 | 34.498 | 20.706 | 1.00 | 21.62 | heav | O |
| ATOM | 1470 | O | THR | 1190 | 18.681 | 35.634 | 20.211 | 1.00 | 15.87 | heav | O |
| ATOM | 1471 | N | VAL | 1191 | 17.731 | 33.708 | 20.905 | 1.00 | 26.19 | heav | O |
| ATOM | 1472 | CA | VAL | 1191 | 16.407 | 33.988 | 20.367 | 1.00 | 26.19 | heav | O |
| ATOM | 1473 | CB | VAL | 1191 | 16.474 | 33.160 | 19.039 | 1.00 | 20.96 | heav | O |
| ATOM | 1474 | CG1 | VAL | 1191 | 15.762 | 31.823 | 19.079 | 1.00 | 20.96 | heav | O |
| ATOM | 1475 | CG2 | VAL | 1191 | 15.924 | 34.033 | 17.981 | 1.00 | 20.96 | heav | O |
| ATOM | 1476 | C | VAL | 1191 | 15.397 | 33.588 | 21.452 | 1.00 | 26.19 | heav | O |
| ATOM | 1477 | O | VAL | 1191 | 15.742 | 32.671 | 22.206 | 1.00 | 20.96 | heav | O |
| ATOM | 1478 | N | PRO | 1192 | 14.224 | 34.211 | 21.701 | 1.00 | 19.03 | heav | O |
| ATOM | 1479 | CD | PRO | 1192 | 13.886 | 35.537 | 21.229 | 1.00 | 14.23 | heav | O |
| ATOM | 1480 | CA | PRO | 1192 | 13.205 | 33.742 | 22.666 | 1.00 | 19.03 | heav | O |
| ATOM | 1481 | CB | PRO | 1192 | 12.014 | 34.636 | 22.536 | 1.00 | 14.23 | heav | O |
| ATOM | 1482 | CG | PRO | 1192 | 12.365 | 35.491 | 21.341 | 1.00 | 14.23 | heav | O |
| ATOM | 1483 | C | PRO | 1192 | 12.842 | 32.337 | 22.296 | 1.00 | 19.03 | heav | O |
| ATOM | 1484 | O | PRO | 1192 | 12.801 | 32.075 | 21.107 | 1.00 | 14.23 | heav | O |
| ATOM | 1485 | N | SER | 1193 | 12.486 | 31.420 | 23.167 | 1.00 | 21.89 | heav | O |

| ATOM | 1486 | CA | SER | 1193 | 12.266 | 30.015 | 22.799 | 1.00 | 21.89 | heav | O |
|------|------|------|-----|------|--------|--------|--------|------|-------|------|---|
| ATOM | 1487 | CB | SER | 1193 | 12.637 | 29.236 | 24.037 | 1.00 | 64.55 | heav | O |
| ATOM | 1488 | OG | SER | 1193 | 12.033 | 29.914 | 25.138 | 1.00 | 64.55 | heav | O |
| ATOM | 1489 | C | SER | 1193 | 10.892 | 29.596 | 22.272 | 1.00 | 21.89 | heav | O |
| ATOM | 1490 | O | SER | 1193 | 10.221 | 28.686 | 22.776 | 1.00 | 64.55 | heav | O |
| ATOM | 1491 | N | SER | 1194 | 10.504 | 30.290 | 21.229 | 1.00 | 43.64 | heav | O |
| ATOM | 1492 | CA | SER | 1194 | .168 | 30.177 | 20.688 | 1.00 | 43.64 | heav | O |
| ATOM | 1493 | CB | SER | 1194 | .202 | 31.027 | 21.538 | 1.00 | 58.27 | heav | O |
| ATOM | 1494 | OG | SER | 1194 | .725 | 32.273 | 22.036 | 1.00 | 58.27 | heav | O |
| ATOM | 1495 | C | SER | 1194 | .228 | 30.694 | 19.281 | 1.00 | 43.64 | heav | O |
| ATOM | 1496 | O | SER | 1194 | .278 | 30.507 | 18.526 | 1.00 | 58.27 | heav | O |
| ATOM | 1497 | N | PRO | 1195 | 10.233 | 31.545 | 18.970 | 1.00 | 2.00 | heav | O |
| ATOM | 1498 | CD | PRO | 1195 | 10.346 | 32.949 | 19.400 | 1.00 | 58.47 | heav | O |
| ATOM | 1499 | CA | PRO | 1195 | 10.744 | 31.549 | 17.642 | 1.00 | 2.00 | heav | O |
| ATOM | 1500 | CB | PRO | 1195 | 11.617 | 32.808 | 17.422 | 1.00 | 58.47 | heav | O |
| ATOM | 1501 | CG | PRO | 1195 | 11.700 | 33.375 | 18.788 | 1.00 | 58.47 | heav | O |
| ATOM | 1502 | C | PRO | 1195 | 11.458 | 30.264 | 17.379 | 1.00 | 2.00 | heav | O |
| ATOM | 1503 | O | PRO | 1195 | 10.871 | 29.637 | 16.522 | 1.00 | 58.47 | heav | O |
| ATOM | 1504 | N | ARG | 1196 | 12.544 | 29.724 | 17.887 | 1.00 | 47.85 | heav | O |
| ATOM | 1505 | CA | ARG | 1196 | 12.892 | 28.367 | 17.399 | 1.00 | 47.85 | heav | O |
| ATOM | 1506 | CB | ARG | 1196 | 14.375 | 28.169 | 17.390 | 1.00 | 21.19 | heav | O |
| ATOM | 1507 | CG | ARG | 1196 | 14.941 | 27.533 | 16.120 | 1.00 | 21.19 | heav | O |
| ATOM | 1508 | CD | ARG | 1196 | 15.250 | 26.089 | 16.087 | 1.00 | 21.19 | heav | O |
| ATOM | 1509 | NE | ARG | 1196 | 15.312 | 25.631 | 17.459 | 1.00 | 21.19 | heav | O |
| ATOM | 1510 | CZ | ARG | 1196 | 16.019 | 24.565 | 17.820 | 1.00 | 21.19 | heav | O |
| ATOM | 1511 | NH1 | ARG | 1196 | 16.724 | 23.846 | 16.942 | 1.00 | 21.19 | heav | O |
| ATOM | 1512 | NH2 | ARG | 1196 | 16.021 | 24.160 | 19.080 | 1.00 | 21.19 | heav | O |
| ATOM | 1513 | C | ARG | 1196 | 12.240 | 27.444 | 18.418 | 1.00 | 47.85 | heav | O |
| ATOM | 1514 | O | ARG | 1196 | 11.891 | 27.970 | 19.491 | 1.00 | 21.19 | heav | O |
| ATOM | 1515 | N | CPR | 1197 | 11.794 | 26.198 | 18.151 | 1.00 | 31.70 | heav | O |
| ATOM | 1516 | CD | CPR | 1197 | 11.986 | 25.114 | 19.106 | 1.00 | 15.22 | heav | O |
| ATOM | 1517 | CA | CPR | 1197 | 11.790 | 25.559 | 16.833 | 1.00 | 31.70 | heav | O |
| ATOM | 1518 | CB | CPR | 1197 | 11.639 | 24.065 | 17.059 | 1.00 | 15.22 | heav | O |
| ATOM | 1519 | CG | CPR | 1197 | 12.480 | 23.918 | 18.268 | 1.00 | 15.22 | heav | O |
| ATOM | 1520 | C | CPR | 1197 | 10.685 | 26.075 | 15.921 | 1.00 | 31.70 | heav | O |
| ATOM | 1521 | O | CPR | 1197 | 10.814 | 25.945 | 14.722 | 1.00 | 15.22 | heav | O |
| ATOM | 1522 | N | SER | 1198 | .597 | 26.657 | 16.404 | 1.00 | 2.00 | heav | O |
| ATOM | 1523 | CA | SER | 1198 | .452 | 27.096 | 15.583 | 1.00 | 2.00 | heav | O |
| ATOM | 1524 | CB | SER | 1198 | .549 | 27.939 | 16.482 | 1.00 | 55.63 | heav | O |
| ATOM | 1525 | OG | SER | 1198 | .006 | 27.858 | 17.832 | 1.00 | 55.63 | heav | O |
| ATOM | 1526 | C | SER | 1198 | .706 | 27.860 | 14.264 | 1.00 | 2.00 | heav | O |
| ATOM | 1527 | O | SER | 1198 | .011 | 27.671 | 13.263 | 1.00 | 55.63 | heav | O |
| ATOM | 1528 | N | GLU | 1199 | .624 | 28.819 | 14.330 | 1.00 | 15.01 | heav | O |
| ATOM | 1529 | CA | GLU | 1199 | 10.064 | 29.591 | 13.220 | 1.00 | 15.01 | heav | O |
| ATOM | 1530 | CB | GLU | 1199 | 10.075 | 31.078 | 13.616 | 1.00 | 41.67 | heav | O |
| ATOM | 1531 | CG | GLU | 1199 | .707 | 31.760 | 13.954 | 1.00 | 41.67 | heav | O |
| ATOM | 1532 | CD | GLU | 1199 | .649 | 33.324 | 14.089 | 1.00 | 41.67 | heav | O |
| ATOM | 1533 | OE1 | GLU | 1199 | .632 | 34.038 | 13.789 | 1.00 | 41.67 | heav | O |
| ATOM | 1534 | OE2 | GLU | 1199 | .597 | 33.852 | 14.500 | 1.00 | 41.67 | heav | O |
| ATOM | 1535 | C | GLU | 1199 | 11.468 | 29.032 | 12.916 | 1.00 | 15.01 | heav | O |
| ATOM | 1536 | O | GLU | 1199 | 12.189 | 28.395 | 13.692 | 1.00 | 41.67 | heav | O |
| ATOM | 1537 | N | THR | 1200 | 11.849 | 29.331 | 11.697 | 1.00 | 2.00 | heav | O |
| ATOM | 1538 | CA | THR | 1200 | 13.084 | 28.951 | 11.079 | 1.00 | 2.00 | heav | O |
| ATOM | 1539 | CB | THR | 1200 | 12.917 | 29.036 | 9.566 | 1.00 | 18.56 | heav | O |
| ATOM | 1540 | OG1 | THR | 1200 | 11.581 | 28.749 | 9.167 | 1.00 | 18.56 | heav | O |
| ATOM | 1541 | CG2 | THR | 1200 | 13.746 | 27.967 | 8.923 | 1.00 | 18.56 | heav | O |
| ATOM | 1542 | C | THR | 1200 | 14.208 | 29.870 | 11.491 | 1.00 | 2.00 | heav | O |
| ATOM | 1543 | O | THR | 1200 | 14.069 | 31.100 | 11.470 | 1.00 | 18.56 | heav | O |
| ATOM | 1544 | N | VAL | 1201 | 15.312 | 29.262 | 11.890 | 1.00 | 13.39 | heav | O |
| ATOM | 1545 | CA | VAL | 1201 | 16.534 | 30.006 | 12.112 | 1.00 | 13.39 | heav | O |
| ATOM | 1546 | CB | VAL | 1201 | 16.919 | 29.891 | 13.571 | 1.00 | 11.13 | heav | O |
| ATOM | 1547 | CG1 | VAL | 1201 | 18.247 | 30.550 | 13.782 | 1.00 | 11.13 | heav | O |
| ATOM | 1548 | CG2 | VAL | 1201 | 15.951 | 30.672 | 14.447 | 1.00 | 11.13 | heav | O |
| ATOM | 1549 | C | VAL | 1201 | 17.596 | 29.364 | 11.203 | 1.00 | 13.39 | heav | O |
| ATOM | 1550 | O | VAL | 1201 | 17.744 | 28.112 | 11.227 | 1.00 | 11.13 | heav | O |
| ATOM | 1551 | N | THR | 1202 | 18.337 | 30.181 | 10.427 | 1.00 | 2.00 | heav | O |
| ATOM | 1552 | CA | THR | 1202 | 19.352 | 29.725 | 9.489 | 1.00 | 2.00 | heav | O |

| ATOM | 1553 | CB  | THR | 1202 | 18.813 | 29.762 | 8.070  | 1.00 | 17.50 | heav | O |
|------|------|-----|-----|------|--------|--------|--------|------|-------|------|---|
| ATOM | 1554 | OG1 | THR | 1202 | 18.187 | 28.523 | 7.997  | 1.00 | 17.50 | heav | O |
| ATOM | 1555 | CG2 | THR | 1202 | 19.777 | 29.791 | 6.918  | 1.00 | 17.50 | heav | O |
| ATOM | 1556 | C   | THR | 1202 | 20.598 | 30.570 | 9.541  | 1.00 | 2.00  | heav | O |
| ATOM | 1557 | O   | THR | 1202 | 20.520 | 31.807 | 9.645  | 1.00 | 17.50 | heav | O |
| ATOM | 1558 | N   | CYS | 1203 | 21.767 | 29.946 | 9.519  | 1.00 | 2.00  | heav | O |
| ATOM | 1559 | CA  | CYS | 1203 | 22.921 | 30.782 | 9.405  | 1.00 | 2.00  | heav | O |
| ATOM | 1560 | C   | CYS | 1203 | 23.327 | 30.712 | 7.947  | 1.00 | 2.00  | heav | O |
| ATOM | 1561 | O   | CYS | 1203 | 23.017 | 29.769 | 7.211  | 1.00 | 20.48 | heav | O |
| ATOM | 1562 | CB  | CYS | 1203 | 24.025 | 30.321 | 10.326 | 1.00 | 20.48 | heav | O |
| ATOM | 1563 | SG  | CYS | 1203 | 24.951 | 28.887 | 9.829  | 1.00 | 20.48 | heav | O |
| ATOM | 1564 | N   | ASN | 1204 | 23.954 | 31.795 | 7.498  | 1.00 | 39.97 | heav | O |
| ATOM | 1565 | CA  | ASN | 1204 | 24.274 | 31.963 | 6.100  | 1.00 | 39.97 | heav | O |
| ATOM | 1566 | CB  | ASN | 1204 | 23.572 | 33.140 | 5.504  | 1.00 | 19.51 | heav | O |
| ATOM | 1567 | CG  | ASN | 1204 | 22.170 | 33.335 | 6.030  | 1.00 | 19.51 | heav | O |
| ATOM | 1568 | OD1 | ASN | 1204 | 21.897 | 33.589 | 7.205  | 1.00 | 19.51 | heav | O |
| ATOM | 1569 | ND2 | ASN | 1204 | 21.183 | 33.268 | 5.173  | 1.00 | 19.51 | heav | O |
| ATOM | 1570 | C   | ASN | 1204 | 25.726 | 32.281 | 6.145  | 1.00 | 39.97 | heav | O |
| ATOM | 1571 | O   | ASN | 1204 | 26.063 | 33.315 | 6.703  | 1.00 | 19.51 | heav | O |
| ATOM | 1572 | N   | VAL | 1205 | 26.596 | 31.448 | 5.617  | 1.00 | 2.00  | heav | O |
| ATOM | 1573 | CA  | VAL | 1205 | 28.026 | 31.713 | 5.657  | 1.00 | 2.00  | heav | O |
| ATOM | 1574 | CB  | VAL | 1205 | 28.804 | 30.612 | 6.477  | 1.00 | 2.00  | heav | O |
| ATOM | 1575 | CG1 | VAL | 1205 | 27.857 | 29.495 | 6.845  | 1.00 | 2.00  | heav | O |
| ATOM | 1576 | CG2 | VAL | 1205 | 29.994 | 30.060 | 5.713  | 1.00 | 2.00  | heav | O |
| ATOM | 1577 | C   | VAL | 1205 | 28.523 | 31.764 | 4.233  | 1.00 | 2.00  | heav | O |
| ATOM | 1578 | O   | VAL | 1205 | 28.113 | 30.936 | 3.418  | 1.00 | 2.00  | heav | O |
| ATOM | 1579 | N   | ALA | 1206 | 29.467 | 32.653 | 3.952  | 1.00 | 26.54 | heav | O |
| ATOM | 1580 | CA  | ALA | 1206 | 29.955 | 32.878 | 2.601  | 1.00 | 26.54 | heav | O |
| ATOM | 1581 | CB  | ALA | 1206 | 29.453 | 34.163 | 2.045  | 1.00 | 40.33 | heav | O |
| ATOM | 1582 | C   | ALA | 1206 | 31.440 | 33.015 | 2.703  | 1.00 | 26.54 | heav | O |
| ATOM | 1583 | O   | ALA | 1206 | 31.965 | 33.738 | 3.560  | 1.00 | 40.33 | heav | O |
| ATOM | 1584 | N   | HIS | 1207 | 32.135 | 32.310 | 1.849  | 1.00 | 2.00  | heav | O |
| ATOM | 1585 | CA  | HIS | 1207 | 33.546 | 32.360 | 1.986  | 1.00 | 2.00  | heav | O |
| ATOM | 1586 | CB  | HIS | 1207 | 34.036 | 31.029 | 2.478  | 1.00 | 25.94 | heav | O |
| ATOM | 1587 | CG  | HIS | 1207 | 35.547 | 30.920 | 2.426  | 1.00 | 25.94 | heav | O |
| ATOM | 1588 | CD2 | HIS | 1207 | 36.434 | 31.624 | 3.190  | 1.00 | 25.94 | heav | O |
| ATOM | 1589 | ND1 | HIS | 1207 | 36.237 | 30.116 | 1.645  | 1.00 | 25.94 | heav | O |
| ATOM | 1590 | CE1 | HIS | 1207 | 37.506 | 30.304 | 1.916  | 1.00 | 25.94 | heav | O |
| ATOM | 1591 | NE2 | HIS | 1207 | 37.617 | 31.208 | 2.842  | 1.00 | 25.94 | heav | O |
| ATOM | 1592 | C   | HIS | 1207 | 34.068 | 32.689 | 0.622  | 1.00 | 2.00  | heav | O |
| ATOM | 1593 | O   | HIS | 1207 | 34.562 | 31.813 | -0.112 | 1.00 | 25.94 | heav | O |
| ATOM | 1594 | N   | PRO | 1208 | 34.042 | 33.968 | 0.267  | 1.00 | 2.00  | heav | O |
| ATOM | 1595 | CD  | PRO | 1208 | 33.900 | 35.074 | 1.176  | 1.00 | 21.54 | heav | O |
| ATOM | 1596 | CA  | PRO | 1208 | 34.208 | 34.441 | -1.082 | 1.00 | 2.00  | heav | O |
| ATOM | 1597 | CB  | PRO | 1208 | 34.135 | 35.891 | -0.942 | 1.00 | 21.54 | heav | O |
| ATOM | 1598 | CG  | PRO | 1208 | 33.264 | 36.046 | 0.252  | 1.00 | 21.54 | heav | O |
| ATOM | 1599 | C   | PRO | 1208 | 35.495 | 33.963 | -1.725 | 1.00 | 2.00  | heav | O |
| ATOM | 1600 | O   | PRO | 1208 | 35.454 | 33.640 | -2.912 | 1.00 | 21.54 | heav | O |
| ATOM | 1601 | N   | ALA | 1209 | 36.624 | 33.739 | -1.038 | 1.00 | 26.25 | heav | O |
| ATOM | 1602 | CA  | ALA | 1209 | 37.827 | 33.285 | -1.743 | 1.00 | 26.25 | heav | O |
| ATOM | 1603 | CB  | ALA | 1209 | 38.993 | 33.129 | -0.770 | 1.00 | 44.49 | heav | O |
| ATOM | 1604 | C   | ALA | 1209 | 37.637 | 31.952 | -2.475 | 1.00 | 26.25 | heav | O |
| ATOM | 1605 | O   | ALA | 1209 | 38.519 | 31.522 | -3.211 | 1.00 | 44.49 | heav | O |
| ATOM | 1606 | N   | SER | 1210 | 36.503 | 31.266 | -2.259 | 1.00 | 2.00  | heav | O |
| ATOM | 1607 | CA  | SER | 1210 | 36.224 | 30.001 | -2.913 | 1.00 | 2.00  | heav | O |
| ATOM | 1608 | CB  | SER | 1210 | 36.461 | 28.870 | -1.968 | 1.00 | 19.78 | heav | O |
| ATOM | 1609 | OG  | SER | 1210 | 35.620 | 29.029 | -0.816 | 1.00 | 19.78 | heav | O |
| ATOM | 1610 | C   | SER | 1210 | 34.776 | 29.984 | -3.347 | 1.00 | 2.00  | heav | O |
| ATOM | 1611 | O   | SER | 1210 | 34.266 | 28.959 | -3.773 | 1.00 | 19.78 | heav | O |
| ATOM | 1612 | N   | SER | 1211 | 34.081 | 31.115 | -3.243 | 1.00 | 35.96 | heav | O |
| ATOM | 1613 | CA  | SER | 1211 | 32.720 | 31.254 | -3.736 | 1.00 | 35.96 | heav | O |
| ATOM | 1614 | CB  | SER | 1211 | 32.787 | 31.261 | -5.247 | 1.00 | 54.85 | heav | O |
| ATOM | 1615 | OG  | SER | 1211 | 33.972 | 31.953 | -5.643 | 1.00 | 54.85 | heav | O |
| ATOM | 1616 | C   | SER | 1211 | 31.800 | 30.159 | -3.242 | 1.00 | 35.96 | heav | O |
| ATOM | 1617 | O   | SER | 1211 | 31.005 | 29.511 | -3.923 | 1.00 | 54.85 | heav | O |
| ATOM | 1618 | N   | THR | 1212 | 32.030 | 29.891 | -1.994 | 1.00 | 2.00  | heav | O |
| ATOM | 1619 | CA  | THR | 1212 | 31.200 | 28.965 | -1.321 | 1.00 | 2.00  | heav | O |

| ATOM | 1620 | CB | THR | 1212 | 32.110 | 28.259 | -0.394 | 1.00 | 25.75 | heav | 0 |
|------|------|------|------|------|--------|--------|--------|------|-------|------|---|
| ATOM | 1621 | OG1 | THR | 1212 | 33.189 | 27.835 | -1.205 | 1.00 | 25.75 | heav | 0 |
| ATOM | 1622 | CG2 | THR | 1212 | 31.462 | 27.118 | 0.345 | 1.00 | 25.75 | heav | 0 |
| ATOM | 1623 | C | THR | 1212 | 30.259 | 29.975 | -0.651 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1624 | O | THR | 1212 | 30.677 | 31.080 | -0.211 | 1.00 | 25.75 | heav | 0 |
| ATOM | 1625 | N | LYS | 1213 | 28.974 | 29.593 | -0.648 | 1.00 | 28.56 | heav | 0 |
| ATOM | 1626 | CA | LYS | 1213 | 27.902 | 30.270 | 0.066 | 1.00 | 28.56 | heav | 0 |
| ATOM | 1627 | CB | LYS | 1213 | 27.114 | 31.223 | -0.858 | 1.00 | 77.08 | heav | 0 |
| ATOM | 1628 | CG | LYS | 1213 | 26.572 | 32.530 | -0.219 | 1.00 | 77.08 | heav | 0 |
| ATOM | 1629 | CD | LYS | 1213 | 25.574 | 32.371 | 0.961 | 1.00 | 77.08 | heav | 0 |
| ATOM | 1630 | CE | LYS | 1213 | 25.333 | 33.653 | 1.785 | 1.00 | 77.08 | heav | 0 |
| ATOM | 1631 | NZ | LYS | 1213 | 24.737 | 34.732 | 1.012 | 1.00 | 77.08 | heav | 0 |
| ATOM | 1632 | C | LYS | 1213 | 27.013 | 29.092 | 0.493 | 1.00 | 28.56 | heav | 0 |
| ATOM | 1633 | O | LYS | 1213 | 26.622 | 28.298 | -0.366 | 1.00 | 77.08 | heav | 0 |
| ATOM | 1634 | N | VAL | 1214 | 26.748 | 28.875 | 1.804 | 1.00 | 18.83 | heav | 0 |
| ATOM | 1635 | CA | VAL | 1214 | 25.877 | 27.794 | 2.305 | 1.00 | 18.83 | heav | 0 |
| ATOM | 1636 | CB | VAL | 1214 | 26.699 | 26.502 | 2.817 | 1.00 | 19.34 | heav | 0 |
| ATOM | 1637 | CG1 | VAL | 1214 | 28.191 | 26.739 | 2.727 | 1.00 | 19.34 | heav | 0 |
| ATOM | 1638 | CG2 | VAL | 1214 | 26.387 | 26.150 | 4.243 | 1.00 | 19.34 | heav | 0 |
| ATOM | 1639 | C | VAL | 1214 | 24.994 | 28.328 | 3.414 | 1.00 | 18.83 | heav | 0 |
| ATOM | 1640 | O | VAL | 1214 | 25.460 | 29.121 | 4.239 | 1.00 | 19.34 | heav | 0 |
| ATOM | 1641 | N | ASP | 1215 | 23.707 | 27.940 | 3.307 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1642 | CA | ASP | 1215 | 22.687 | 28.243 | 4.298 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1643 | CB | ASP | 1215 | 21.410 | 28.642 | 3.633 | 1.00 | 46.71 | heav | 0 |
| ATOM | 1644 | CG | ASP | 1215 | 21.540 | 29.888 | 2.771 | 1.00 | 46.71 | heav | 0 |
| ATOM | 1645 | OD1 | ASP | 1215 | 20.740 | 30.010 | 1.853 | 1.00 | 46.71 | heav | 0 |
| ATOM | 1646 | OD2 | ASP | 1215 | 22.421 | 30.725 | 2.975 | 1.00 | 46.71 | heav | 0 |
| ATOM | 1647 | C | ASP | 1215 | 22.476 | 26.976 | 5.103 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1648 | O | ASP | 1215 | 22.618 | 25.882 | 4.553 | 1.00 | 46.71 | heav | 0 |
| ATOM | 1649 | N | LYS | 1216 | 22.193 | 27.058 | 6.406 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1650 | CA | LYS | 1216 | 22.056 | 25.901 | 7.276 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1651 | CB | LYS | 1216 | 23.321 | 25.623 | 8.058 | 1.00 | 35.85 | heav | 0 |
| ATOM | 1652 | CG | LYS | 1216 | 23.667 | 24.156 | 8.051 | 1.00 | 35.85 | heav | 0 |
| ATOM | 1653 | CD | LYS | 1216 | 23.825 | 23.700 | 6.610 | 1.00 | 35.85 | heav | 0 |
| ATOM | 1654 | CE | LYS | 1216 | 24.088 | 22.214 | 6.522 | 1.00 | 35.85 | heav | 0 |
| ATOM | 1655 | NZ | LYS | 1216 | 25.475 | 21.935 | 6.860 | 1.00 | 35.85 | heav | 0 |
| ATOM | 1656 | C | LYS | 1216 | 20.978 | 26.289 | 8.233 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1657 | O | LYS | 1216 | 20.948 | 27.388 | 8.775 | 1.00 | 35.85 | heav | 0 |
| ATOM | 1658 | N | LYS | 1217 | 19.990 | 25.440 | 8.319 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1659 | CA | LYS | 1217 | 18.866 | 25.697 | 9.173 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1660 | CB | LYS | 1217 | 17.659 | 25.224 | 8.445 | 1.00 | 18.82 | heav | 0 |
| ATOM | 1661 | CG | LYS | 1217 | 16.322 | 25.202 | 9.160 | 1.00 | 18.82 | heav | 0 |
| ATOM | 1662 | CD | LYS | 1217 | 15.506 | 24.429 | 8.151 | 1.00 | 18.82 | heav | 0 |
| ATOM | 1663 | CE | LYS | 1217 | 14.083 | 24.185 | 8.523 | 1.00 | 18.82 | heav | 0 |
| ATOM | 1664 | NZ | LYS | 1217 | 13.567 | 23.324 | 7.466 | 1.00 | 18.82 | heav | 0 |
| ATOM | 1665 | C | LYS | 1217 | 19.175 | 24.898 | 10.390 | 1.00 | 2.00 | heav | 0 |
| ATOM | 1666 | O | LYS | 1217 | 19.666 | 23.773 | 10.323 | 1.00 | 18.82 | heav | 0 |
| ATOM | 1667 | N | ILE | 1218 | 18.920 | 25.479 | 11.525 | 1.00 | 27.93 | heav | 0 |
| ATOM | 1668 | CA | ILE | 1218 | 19.233 | 24.787 | 12.739 | 1.00 | 27.93 | heav | 0 |
| ATOM | 1669 | CB | ILE | 1218 | 19.575 | 25.723 | 13.894 | 1.00 | 14.06 | heav | 0 |
| ATOM | 1670 | CG2 | ILE | 1218 | 20.102 | 24.750 | 14.924 | 1.00 | 14.06 | heav | 0 |
| ATOM | 1671 | CG1 | ILE | 1218 | 20.516 | 26.900 | 13.565 | 1.00 | 14.06 | heav | 0 |
| ATOM | 1672 | CD1 | ILE | 1218 | 21.865 | 26.567 | 12.854 | 1.00 | 14.06 | heav | 0 |
| ATOM | 1673 | C | ILE | 1218 | 17.917 | 24.129 | 13.039 | 1.00 | 27.93 | heav | 0 |
| ATOM | 1674 | O | ILE | 1218 | 16.914 | 24.794 | 13.356 | 1.00 | 14.06 | heav | 0 |
| ATOM | 1675 | N | VAL | 1219 | 17.949 | 22.829 | 12.791 | 1.00 | 12.22 | heav | 0 |
| ATOM | 1676 | CA | VAL | 1219 | 16.820 | 21.997 | 13.174 | 1.00 | 12.22 | heav | 0 |
| ATOM | 1677 | CB | VAL | 1219 | 16.650 | 20.819 | 12.193 | 1.00 | 27.03 | heav | 0 |
| ATOM | 1678 | CG1 | VAL | 1219 | 16.442 | 21.470 | 10.869 | 1.00 | 27.03 | heav | 0 |
| ATOM | 1679 | CG2 | VAL | 1219 | 17.821 | 19.833 | 12.129 | 1.00 | 27.03 | heav | 0 |
| ATOM | 1680 | C | VAL | 1219 | 17.129 | 21.473 | 14.585 | 1.00 | 12.22 | heav | 0 |
| ATOM | 1681 | O | VAL | 1219 | 18.326 | 21.485 | 14.949 | 1.00 | 27.03 | heav | 0 |
| ATOM | 1682 | N | PRO | 1220 | 16.129 | 21.062 | 15.422 | 1.00 | 14.75 | heav | 0 |
| ATOM | 1683 | CD | PRO | 1220 | 14.719 | 21.200 | 15.137 | 1.00 | 21.35 | heav | 0 |
| ATOM | 1684 | CA | PRO | 1220 | 16.301 | 20.354 | 16.687 | 1.00 | 14.75 | heav | 0 |
| ATOM | 1685 | CB | PRO | 1220 | 14.975 | 20.191 | 17.300 | 1.00 | 21.35 | heav | 0 |
| ATOM | 1686 | CG | PRO | 1220 | 13.984 | 20.694 | 16.351 | 1.00 | 21.35 | heav | 0 |

| ATOM | 1687 | C | PRO | 1220 | 16.955 | 19.004 | 16.590 | 1.00 14.75 | heav | O |
|------|------|-----|-----|------|--------|--------|--------|------------|------|---|
| ATOM | 1688 | O | PRO | 1220 | 17.111 | 18.529 | 15.457 | 1.00 21.35 | heav | O |
| ATOM | 1689 | N | ARG | 1221 | 17.360 | 18.544 | 17.772 | 1.00 64.58 | heav | O |
| ATOM | 1690 | CA | ARG | 1221 | 18.142 | 17.341 | 17.703 | 1.00 64.58 | heav | O |
| ATOM | 1691 | CB | ARG | 1221 | 18.722 | 17.421 | 19.016 | 1.00127.60 | heav | O |
| ATOM | 1692 | CG | ARG | 1221 | 20.082 | 17.795 | 18.472 | 1.00127.60 | heav | O |
| ATOM | 1693 | CD | ARG | 1221 | 21.338 | 17.730 | 19.242 | 1.00127.60 | heav | O |
| ATOM | 1694 | NE | ARG | 1221 | 21.730 | 16.341 | 19.556 | 1.00127.60 | heav | O |
| ATOM | 1695 | CZ | ARG | 1221 | 23.062 | 15.811 | 19.326 | 1.00127.60 | heav | O |
| ATOM | 1696 | NH1 | ARG | 1221 | 24.064 | 16.702 | 18.730 | 1.00127.60 | heav | O |
| ATOM | 1697 | NH2 | ARG | 1221 | 23.431 | 14.433 | 19.698 | 1.00127.60 | heav | O |
| ATOM | 1698 | C | ARG | 1221 | 17.661 | 15.933 | 17.287 | 1.00 64.58 | heav | O |
| ATOM | 1699 | OT1 | ARG | 1221 | 16.760 | 15.359 | 18.034 | 1.00127.60 | heav | O |
| ATOM | 1700 | OT2 | ARG | 1221 | 18.236 | 15.633 | 16.157 | 1.00127.60 | heav | O |
| ATOM | 1 | CB | HIS | 2002 | .689 | 72.928 | -0.181 | 1.00114.59 | p142 | O |
| ATOM | 2 | CG | HIS | 2002 | .882 | 73.412 | -1.012 | 1.00114.59 | p142 | O |
| ATOM | 3 | CD2 | HIS | 2002 | .556 | 74.606 | -0.826 | 1.00114.59 | p142 | O |
| ATOM | 4 | ND1 | HIS | 2002 | .489 | 72.759 | -2.010 | 1.00114.59 | p142 | O |
| ATOM | 5 | CE1 | HIS | 2002 | .493 | 73.500 | -2.429 | 1.00114.59 | p142 | O |
| ATOM | 6 | NE2 | HIS | 2002 | .523 | 74.603 | -1.708 | 1.00114.59 | p142 | O |
| ATOM | 7 | C | HIS | 2002 | .063 | 71.919 | 2.039 | 1.00 76.71 | p142 | O |
| ATOM | 8 | O | HIS | 2002 | .189 | 70.702 | 1.893 | 1.00114.59 | p142 | O |
| ATOM | 9 | N | HIS | 2002 | .253 | 72.193 | 1.633 | 1.00 76.71 | p142 | O |
| ATOM | 10 | CA | HIS | 2002 | .999 | 72.886 | 1.329 | 1.00 76.71 | p142 | O |
| ATOM | 11 | N | ILE | 2003 | .334 | 72.534 | 2.957 | 1.00 55.97 | p142 | O |
| ATOM | 12 | CA | ILE | 2003 | .484 | 71.871 | 3.921 | 1.00 55.97 | p142 | O |
| ATOM | 13 | CB | ILE | 2003 | .015 | 72.147 | 5.349 | 1.00 32.05 | p142 | O |
| ATOM | 14 | CG2 | ILE | 2003 | .458 | 71.692 | 5.478 | 1.00 32.05 | p142 | O |
| ATOM | 15 | CG1 | ILE | 2003 | .949 | 73.630 | 5.634 | 1.00 32.05 | p142 | O |
| ATOM | 16 | CD1 | ILE | 2003 | .606 | 74.098 | 6.924 | 1.00 32.05 | p142 | O |
| ATOM | 17 | C | ILE | 2003 | .117 | 72.486 | 3.744 | 1.00 55.97 | p142 | O |
| ATOM | 18 | O | ILE | 2003 | .937 | 73.558 | 3.151 | 1.00 32.05 | p142 | O |
| ATOM | 19 | N | GLY | 2004 | .196 | 71.810 | 4.353 | 1.00 27.02 | p142 | O |
| ATOM | 20 | CA | GLY | 2004 | .860 | 72.315 | 4.412 | 1.00 27.02 | p142 | O |
| ATOM | 21 | C | GLY | 2004 | .945 | 71.642 | 3.412 | 1.00 27.02 | p142 | O |
| ATOM | 22 | O | GLY | 2004 | .257 | 70.628 | 2.767 | 1.00 39.25 | p142 | O |
| ATOM | 23 | N | PRO | 2005 | .728 | 72.189 | 3.334 | 1.00 19.33 | p142 | O |
| ATOM | 24 | CD | PRO | 2005 | .108 | 72.994 | 4.381 | 1.00 13.80 | p142 | O |
| ATOM | 25 | CA | PRO | 2005 | .830 | 71.961 | 2.225 | 1.00 19.33 | p142 | O |
| ATOM | 26 | CB | PRO | 2005 | .540 | 72.520 | 2.716 | 1.00 13.80 | p142 | O |
| ATOM | 27 | CG | PRO | 2005 | .971 | 73.622 | 3.645 | 1.00 13.80 | p142 | O |
| ATOM | 28 | C | PRO | 2005 | .367 | 72.594 | 0.959 | 1.00 19.33 | p142 | O |
| ATOM | 29 | O | PRO | 2005 | .209 | 73.505 | 0.933 | 1.00 13.80 | p142 | O |
| ATOM | 30 | N | GLY | 2006 | .929 | 71.861 | -0.062 | 1.00 10.42 | p142 | O |
| ATOM | 31 | CA | GLY | 2006 | .357 | 72.072 | -1.416 | 1.00 10.42 | p142 | O |
| ATOM | 32 | C | GLY | 2006 | .766 | 71.542 | -1.681 | 1.00 10.42 | p142 | O |
| ATOM | 33 | O | GLY | 2006 | .170 | 71.404 | -2.834 | 1.00 35.92 | p142 | O |
| ATOM | 34 | N | ARG | 2007 | .441 | 71.050 | -0.647 | 1.00 2.00 | p142 | O |
| ATOM | 35 | CA | ARG | 2007 | .789 | 70.473 | -0.608 | 1.00 2.00 | p142 | O |
| ATOM | 36 | CB | ARG | 2007 | .792 | 69.494 | 0.542 | 1.00 34.17 | p142 | O |
| ATOM | 37 | CG | ARG | 2007 | .074 | 69.215 | 1.249 | 1.00 34.17 | p142 | O |
| ATOM | 38 | CD | ARG | 2007 | .982 | 68.072 | 2.222 | 1.00 34.17 | p142 | O |
| ATOM | 39 | NE | ARG | 2007 | .761 | 68.160 | 3.002 | 1.00 34.17 | p142 | O |
| ATOM | 40 | CZ | ARG | 2007 | .207 | 67.073 | 3.496 | 1.00 34.17 | p142 | O |
| ATOM | 41 | NH1 | ARG | 2007 | .735 | 65.856 | 3.318 | 1.00 34.17 | p142 | O |
| ATOM | 42 | NH2 | ARG | 2007 | .045 | 67.145 | 4.145 | 1.00 34.17 | p142 | O |
| ATOM | 43 | C | ARG | 2007 | .117 | 69.750 | -1.918 | 1.00 2.00 | p142 | O |
| ATOM | 44 | O | ARG | 2007 | .005 | 70.108 | -2.675 | 1.00 34.17 | p142 | O |
| ATOM | 45 | N | ALA | 2008 | .229 | 68.792 | -2.231 | 1.00 2.00 | p142 | O |
| ATOM | 46 | CA | ALA | 2008 | .407 | 67.844 | -3.296 | 1.00 2.00 | p142 | O |
| ATOM | 47 | CB | ALA | 2008 | .299 | 66.776 | -3.247 | 1.00 63.20 | p142 | O |
| ATOM | 48 | C | ALA | 2008 | .467 | 68.341 | -4.695 | 1.00 2.00 | p142 | O |
| ATOM | 49 | O | ALA | 2008 | .302 | 67.929 | -5.503 | 1.00 63.20 | p142 | O |
| ATOM | 50 | N | PHE | 2009 | .523 | 69.210 | -4.961 | 1.00 47.20 | p142 | O |
| ATOM | 51 | CA | PHE | 2009 | .407 | 69.675 | -6.313 | 1.00 47.20 | p142 | O |
| ATOM | 52 | CB | PHE | 2009 | .987 | 69.479 | -6.841 | 1.00 32.49 | p142 | O |
| ATOM | 53 | CG | PHE | 2009 | .870 | 69.735 | -5.852 | 1.00 32.49 | p142 | O |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| ATOM | 54 | CD1 | PHE | 2009 | .031 | 68.687 | -5.554 | 1.00 | 32.49 | p142 | O |
| ATOM | 55 | CD2 | PHE | 2009 | .734 | 70.957 | -5.227 | 1.00 | 32.49 | p142 | O |
| ATOM | 56 | CE1 | PHE | 2009 | .047 | 68.867 | -4.617 | 1.00 | 32.49 | p142 | O |
| ATOM | 57 | CE2 | PHE | 2009 | .751 | 71.127 | -4.291 | 1.00 | 32.49 | p142 | O |
| ATOM | 58 | CZ | PHE | 2009 | .908 | 70.080 | -3.980 | 1.00 | 32.49 | p142 | O |
| ATOM | 59 | C | PHE | 2009 | .776 | 71.119 | -6.341 | 1.00 | 47.20 | p142 | O |
| ATOM | 60 | O | PHE | 2009 | .147 | 71.897 | -7.049 | 1.00 | 32.49 | p142 | O |
| ATOM | 61 | N | TYR | 2010 | .816 | 71.453 | -5.580 | 1.00 | 45.96 | p142 | O |
| ATOM | 62 | CA | TYR | 2010 | .341 | 72.807 | -5.519 | 1.00 | 45.96 | p142 | O |
| ATOM | 63 | CB | TYR | 2010 | .683 | 72.856 | -4.811 | 1.00 | 65.43 | p142 | O |
| ATOM | 64 | CG | TYR | 2010 | .210 | 74.225 | -4.434 | 1.00 | 65.43 | p142 | O |
| ATOM | 65 | CD1 | TYR | 2010 | .398 | 75.055 | -3.711 | 1.00 | 65.43 | p142 | O |
| ATOM | 66 | CE1 | TYR | 2010 | .881 | 76.265 | -3.281 | 1.00 | 65.43 | p142 | O |
| ATOM | 67 | CD2 | TYR | 2010 | .502 | 74.592 | -4.752 | 1.00 | 65.43 | p142 | O |
| ATOM | 68 | CE2 | TYR | 2010 | .991 | 75.808 | -4.324 | 1.00 | 65.43 | p142 | O |
| ATOM | 69 | CZ | TYR | 2010 | .178 | 76.640 | -3.580 | 1.00 | 65.43 | p142 | O |
| ATOM | 70 | OH | TYR | 2010 | .665 | 77.833 | -3.051 | 1.00 | 45.96 | p142 | O |
| ATOM | 71 | C | TYR | 2010 | .596 | 73.310 | -6.909 | 1.00 | 45.96 | p142 | O |
| ATOM | 72 | O | TYR | 2010 | .321 | 74.539 | -7.041 | 1.00 | 65.43 | p142 | O |
| ATOM | 73 | N | THR | 2011 | .223 | 72.394 | -7.746 | 1.00 | 99.41 | p142 | O |
| ATOM | 74 | CA | THR | 2011 | .571 | 72.967 | -9.112 | 1.00 | 99.41 | p142 | O |
| ATOM | 75 | CB | THR | 2011 | .772 | 71.982 | -9.555 | 1.00 | 98.25 | p142 | O |
| ATOM | 76 | OG1 | THR | 2011 | .747 | 72.188 | -8.498 | 1.00 | 98.25 | p142 | O |
| ATOM | 77 | CG2 | THR | 2011 | .503 | 72.293 | -10.826 | 1.00 | 98.25 | p142 | O |
| ATOM | 78 | C | THR | 2011 | .451 | 73.241 | -10.189 | 1.00 | 99.41 | p142 | O |
| ATOM | 79 | OT1 | THR | 2011 | .672 | 72.233 | -10.603 | 1.00 | 98.25 | p142 | O |
| ATOM | 80 | OT2 | THR | 2011 | .525 | 74.555 | -10.438 | 1.00 | 98.25 | p142 | O |

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CLAIMS

1.   A method for identifying molecules capable of
binding to or eliciting anti-HIV antibodies, said method
comprising:

5          (1) selecting an antibody-contacting pharmacophore
within peptide antigen RP142;

           (2) comparing said pharmacophore to three-
dimensional molecular structures in a structural database
using a computer program;

10          (3) identifying candidate molecules present within
said database predicted to include said pharmacophore;
and

           (4) screening said candidate molecules to identify
one or more said molecules capable of binding to or
15 eliciting anti-HIV antibodies.


2.   The molecules identified by the method of
claim 1.


3.   A method for identifying molecules capable of
binding to or eliciting anti-HIV antibodies, said method
20 comprising:

           (1) selecting an anti-HIV antibody-contacting
pharmacophore within cyclic peptide AS;

           (2) comparing said pharmacophore to three-
dimensional molecular structures in a structural database
25 using a computer program;

           (3) identifying candidate structures present
within said database predicted to include said
pharmacophore; and

           (4)   screening said candidate molecules to
30 identify one or more said molecules capable of binding to
or eliciting anti-HIV antibodies.

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4.  The molecules identified by the method of claim 3.

5.  A method for identifying molecules capable of binding to or eliciting anti-HIV antibodies, said method
5   comprising:

(1) selecting a region of three to seven contiguous amino acids within the central domain of peptide antigen RP142;

(2) comparing the atomic coordinates of the
10  backbone of said selected region of RP142 with the atomic coordinates of the backbones of three to seven amino acid polypeptide sequences in a protein structure database using a computer program;

(3) identifying a candidate three to seven amino
15  acid polypeptide sequence present in said database wherein the root mean square difference between said backbone atomic coordinates of said candidate peptide and said backbone atomic coordinates of said selected region of RP142 is less than about 0.5 Å;

20          (4) in a model, sequentially replacing each amino acid side chain of said candidate peptide with an alternative amino acid side chain to create a set of substituted selected peptides; and

(5) identifying preferred substituted selected
25  peptides present in said set of substituted peptides wherein the root mean square difference between all said atomic coordinates of each said preferred substituted selected peptide and all atomic coordinates of said central domain of RP142 is less than about 0.3 Å.

30          6.  The method of claim 5 wherein step (5) comprises the steps of:

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(a) in a model, sequentially replacing each amino acid side chain of said candidate peptide with an alternative amino acid side chain; and

(b) rotating each replaced amino acid side chain
5 of each said candidate peptide on its alpha carbon bond to identify a minimum energy position.


7. The molecules identified by the method of claim 5.


8. A method for identifying molecules capable of
10 binding to or eliciting anti-HIV antibodies, said method comprising:

(1) selecting a region of three to seven contiguous amino acids within cyclic peptide AS;

(2) comparing the atomic coordinates of the
15 backbone of said selected region of cyclic peptide AS with the atomic coordinates of the backbones of three to seven amino acid polypeptide sequences in a protein structure databases using a computer program;

(3) identifying a candidate three to seven amino
20 acid polypeptide sequence present in said database wherein the root mean square difference between said backbone atomic coordinates of said candidate peptide and said backbone atomic coordinates of said selected region of cyclic peptide AS is less than about 0.5Å;
25 (4) in a model, sequentially replacing each amino acid side chain of said candidate peptide with an alternative amino acid side chain to create a set of substituted selected peptides; and

(5) identifying preferred substituted selected
30 peptides present in said set of substituted peptides wherein the root mean square difference between all said atomic coordinates of each said preferred substituted

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selected peptide and all atomic coordinates of said
cyclic peptide AS is less than about 0.3Å.

 9.  The method of claim 8 wherein step (5)
comprises the steps of:
5       (a) in a model, sequentially replacing each amino
acid side chain of said candidate peptide with an
alternative amino acid side; and
        (b) rotating each replaced amino acid side chain
of each said candidate peptide on its alpha carbon bond
10  to identify a minimum energy position.

 10.   The molecules identified by the method of
claim 8.

 11.   A recombinant broadly neutralizing anti-HIV
antibody, comprising a recombinant kappa light chain
15  framework subgroup IV and human heavy chain framework
subgroup II, wherein at least five CDR amino acids
selected from the group consisting of Kabat light chain
amino acids 27D, 92, 93, 94, 96 and Kabat heavy chain
amino acids 33, 50, 52, 53, 56, 57, 95 and 100I are
20  identical to the corresponding 58.2 contact amino acids.

 12.   A recombinant broadly neutralizing anti-HIV
antibody, comprising a recombinant kappa light chain
framework subgroup IV and human heavy chain framework
subgroup II, wherein at least five CDR amino acids
25  selected from the group consisting of Kabat light chain
amino acids 27D, 28, 91, 92, 93, 94, and Kabat heavy
chain amino acids 33, 35, 50, 52, 53, 54, 97 and 98 are
identical to the corresponding 59.1 contact amino acids.

# INTERNATIONAL SEARCH REPORT

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(5) :C07K 7/00, 15/00, 7/64; G01N 33/53
US CL :530/300, 329, 330, 331, 388.35, 403; 436/501

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 530/300, 329, 330, 331, 388.35, 403; 436/501; 424/89; 514/2

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, DIALOG.
SEARCH TERMS: HIV, HTLV, MOLECULAR MODELING, V3, PND, PRINCIPAL NEUTRALIZING DOMAIN, RP152, RP142, CRYSTALLOGRAPHIC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| X | WO, A, 90/03984 (RUSCHE ET AL.) 19 APRIL 1990, SEE CLAIMS. | 1-12 |
| A | SCIENCE, VOLUME 249, ISSUED 24 AUGUST 1990, GREGORY LAROSA ET AL, "CONSERVED SEQUENCE AND STRUCTURAL ELEMENTS IN THE HIV-1 PRINCIPAL NEUTRALIZING DETERMINANT", PAGES 932-935. SEE ENTIRE DOCUMENT. | 1-12 |
| A | SCIENCE, VOLUME 251, ISSUED 15 FEBRUARY 1991, GREGORY LAROSA ET AL, "CONSERVED SEQUENCE AND STRUCTURAL ELEMENTS IN THE HIV-1 PRINCIPAL NEUTRALIZING DETERMINANT: CORRECTIONS AND CLARIFICATIONS", PAGE 811, SEE ENTIRE DOCUMENT. | 1-12 |

[X] Further documents are listed in the continuation of Box C.      [ ] See patent family annex.

| * | Special categories of cited documents: | "T" | later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
|---|---|---|---|
| "A" | document defining the general state of the art which is not considered to be part of particular relevance | | |
| "E" | earlier document published on or after the international filing date | "X" | document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
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| "O" | document referring to an oral disclosure, use, exhibition or other means | "Y" | document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "P" | document published prior to the international filing date but later than the priority date claimed | "&" | document member of the same patent family |

| Date of the actual completion of the international search | Date of mailing of the international search report |
|---|---|
| 17 March 1994 | 2 0 APR 1994 |

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| A | PROTEINS: STRUCTURE, FUNCTION AND GENETICS, VOLUME 14, ISSUED 1992, ENRICO A. STURA ET AL, "CRYSTALLIZATION, SEQUENCE, AND PRELIMINARY CRYSTALLOGRAPHIC DATA FOR AN ANTIPEPTIDE FAB 50.1 AND PEPTIDE COMPLEXES WITH THE PRINCIPAL NEUTRALIZING DETERMINANT OF HIV-1 GP120", PAGES 499-508, SEE ENTIRE DOCUMENT. | 1-12 |
| A | BIOPHYSICAL CHEMISTRY, VOLUME 29, NUMBER 3, ISSUED APRIL 1988, PIOTR ZIELENKIEWICZ ET AL, "METHODS OF MOLECULAR MODELLING OF PROTEIN-PROTEIN INTERACTIONS", PAGES 219-224, SEE ENTIRE DOCUMENT. | 1-12 |
| A | SCIENCE PROGRESS, VOLUME 75, ISSUED 1991, C.J. SUCKLING, "CHEMICAL APPROACHES TO THE DISCOVERY OF NEW DRUGS", PAGES 323-359, SEE ENTIRE DOCUMENT. | 1-12 |

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